

# Service Manual

**Vol. 2**

**Sec. 1 Block Diagrams**

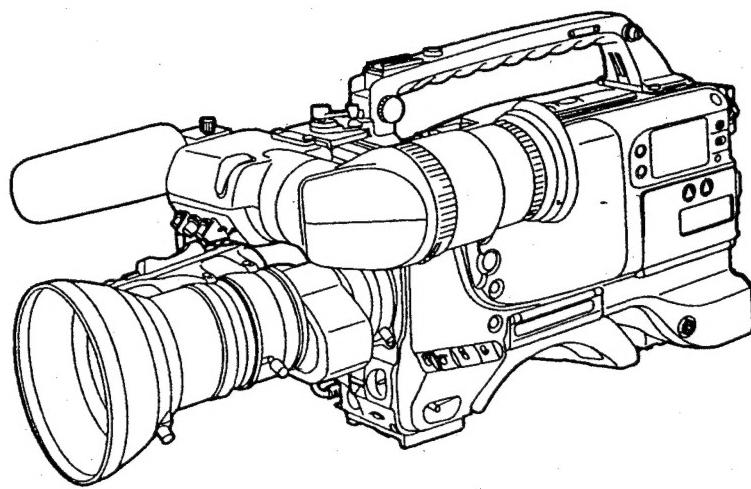
**Sec. 2 Schematic Diagrams**

**Sec. 3 Circuit Board Diagrams**

**DVC PRO**

DVC PRO Camera Recorder

**AJ-D700P**



**Panasonic**

## INTRODUCTION

This service manual contains technical information which allow service personnel to understand and service the DVCPRO Camera Recorder AJ-D700P.

## Specifications

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### General

|                              |         |
|------------------------------|---------|
| <b>Power supply voltage:</b> | DC 12 V |
| <b>Power consumption:</b>    | 22 W    |

|                                   |   |
|-----------------------------------|---|
| <b>Operating temperature:</b>     | 32°F to 104°F   |
| <b>Storage temperature:</b>       | -4°F to 140°F   |
| <b>Operating humidity:</b>        | 25% to 85% max. (relative humidity)   |
| <b>Continuous operating time:</b> | Approx. 90 min. (using 1 Anton Bauer Trimpak 14 battery)                                |
| <b>Weight:</b>                    | Approx. 12.76 lbs (5.8 kg) (includ. main unit, viewfinder, lens, battery pack and tape) |
| <b>Dimensions:</b>                |   |

### Camera Section

|                                    |  |
|------------------------------------|--|
| <b>Pick-up devices:</b>            | 1/2-inch on-chip FIT type of CCD   |
| <b>System:</b>                     | RGB 3-CCD system   |
| <b>Picture elements:</b>           | 410,000 pixel  |
| <b>Spectrum system:</b>            | F1.4 prism system  |
| <b>Built-in filters:</b>           | 1; 3200K<br>2; 5600K+1/4 ND<br>3; 5600K<br>4; 5600K+1/16 ND  |
| <b>Quantization:</b>               | 10-bit A/D (R, G and B channels), 14.3 MHz   |
| <b>Digital signal processing:</b>  | 16-bit long operation, 14.3 MHz/28.6 MHz   |
| <b>Programmable gains:</b>         | 3 positions can be set from among -3, 0, 3, 6, 9, 12, 15, 18, 21, 24 and 30 dB.                                |
| <b>Shutter speeds:</b>             | 1/100, 1/120, 1/250, 1/500, 1/1000 and 1,2000 sec.<br>Synchro scan mode; 1/30.4-1/57.4 sec., 1/61.7-1/250 sec. |
| <b>Lens mount:</b>                 | 1/2" Bayonet type  |
| <b>Sensitivity:</b>                | F8(2000Lux, 89.9% reflection)  |
| <b>Minimum subject brightness:</b> | 2Lux (F1.4+30 dB)  |
| <b>Image S/N ratio:</b>            | 62 dB (typ.)   |
| <b>Horizontal resolution:</b>      | 750 TV lines (typ.)  |
| <b>Vertical resolution:</b>        | 400 TV lines/450 TV lines (SUPER V) (typ.)   |
| <b>Registration:</b>               | Below 0.05% (entire range) (excl. lens)  |
| <b>Geometric distortion:</b>       | Below measurable limit (excl. lens)  |

### Viewfinder

|                    |                     |
|--------------------|---------------------|
| <b>CRT:</b>        | 1.5 type monochrome |
| <b>Resolution:</b> | 600 TV lines        |

## Specifications

### VTR Video System (during playback on a standard playback unit)

|                      |  |
|----------------------|--|
| Bands:               | Brightness; 0 Hz to 5.75 MHz +1.0 dB/-3.0 dB |
| S/N ratio:           | 55 dB  |
| K factor (2T pulse): | Within 2%                                    |
| Linearity:           | Within 2%                                    |
| Y/C delay:           | Within 20 ns                                 |

### VTR Audio System (during playback on a standard playback unit)

|                     |  |
|---------------------|--|
| Sampling frequency: | 48 kHz (synchronized to video)               |
| Quantization:       | 16-bits/sample                               |
| Frequency response: | 20 Hz to 20 kHz ±1.0 dB (at reference level) |
| Dynamic range:      | 85 dB or more (at 1 kHz, AWTD)               |
| Distortion:         | Within 0.1% (at 1 kHz, operating level)      |
| Wow/flutter:        | Below measurable limit                       |
| Head room:          | 20 dB  |
| Emphasis:           | T1=50 µs, T2=15 µs (can be turned ON/OFF)    |

### VTR Tape Running System

|                          |                                   |
|--------------------------|-----------------------------------|
| Tape speed:              | 33.813 mm/s                       |
| Recording/playback time: | 63 min. (using the AJ-P63M)       |
| FF/REW time:             | Approx. 3 min.(using the AJ-P63M) |

## Connectors

### Input

|   |  |
|---|--|
| AUDIO IN CH1/CH2<br>(XLR, 3-pin, male): | MIC/LINE switchable<br>MIC; Menu setting to -60/-50/-40 dBu<br>LINE; Menu setting to -6/0/+4 dBu |
| MIC IN (XLR, 3-pin, female):            | Menu setting to -60/-50/-40 dBu, balanced 3 kohm   |
| GENLOCK IN (BNC):                       | 1.0 Vp-p, 75 ohm   |
| TIME CODE IN (12-pin):                  | 0.5 to 18 Vp-p, 10 kohm  |

### Output

|   |  |
|---|--|
| CAMERA OUT (BNC):                                     | 1.0 Vp-p, 75 ohm   |
| VIDEO OUT (BNC):                                      | 1.0 Vp-p, 75 ohm   |
| AUDIO OUT<br>(XLR, 3-pin, female):                    | +4 dBu, balanced, low-impedance<br>(Menu setting to CH1/CH2/MIX) |
| AUDIO CH1/CH2 OUT<br>(12-pin, TC IN/OUT<br>combined): | -20 dBu, unbalanced, low-impedance                               |
| VTR (26-pin, option):                                 |  |
| TIME CODE OUT (12-pin):                               | 1.0 Vp-p, 75 ohm   |
| PHONES (mini-jack×2):                                 |  |

### Other

|                           |   |
|---------------------------|---|
| DC IN (XLR, 4-pin, male): | DC 11 to 17 V                               |
| DC OUT (4-pin):           | DC 11 to 17 V, maximum rated.current; 0.1 A |
| LENS (12-pin):            |   |
| REMOTE (ECU, 6-pin):      |   |

## Accessories

- Shoulder belt (1)
- Sony battery connector, NP-1 screw
- 26P Output adaptor (1)

Weight and dimensions shown are approximate.  
Specifications are subject to change without notice.

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### **Power supply related**

AU-BP220, AU-BP402 battery packs  
AG-B425 battery charger (for charging the AU-BP220 and AU-BP402 battery packs)  
AU-M402 battery case  
AU-B110 AC adaptor

### **Video cassette tapes**

AJ-P6MP, AJ-P12MP, AJ-P23MP, AJ-P33MP, AJ-P63MP metal tapes

### **Viewfinder**

5-inch viewfinder

### **External VTR-related**

AU-55H, AG-7450A portable video cassette recorders  
AG-S745 VTR adaptor (for connecting the AG-7450A portable VTR)  
AJ-YA700P 26-pin output connector (for connecting an external VTR to the 26-pin interface)  
Connection cables  
•for connecting an external VTR to the 26-pin interface  
•for connecting an external VTR to the 14-pin/26-pin interface  
AQ-EC1 extension control unit

### **Audio components**

SHAN-MC700P microphone kit  
Stereo microphone  
AJ-MH700P microphone holder  
WX-RA700 wireless receiver  
WX-R980 camera attachment

### **Maintenance products**

AJ-CL12MP cleaning tape  
AJ-SC700 soft carrying case  
SHAN-RC700 rain cover (complementary)

# SAFETY PRECAUTIONS

## GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing make the following leakage current checks to prevent the customer from being exposed to shock hazards.

## LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
  2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 MΩ and 5.2MΩ.
- When the exposed metal dose not have a return path to the chassis, the reading must be  $\infty$ .

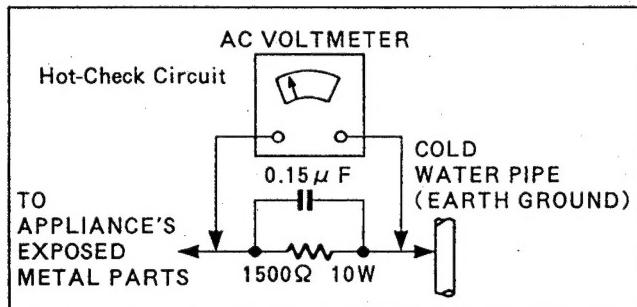


Figure 1

## LEAKAGE CURRENT HOT CHECK (See Figure 1)

1. Plug the AC cord directly into the AC outlet.  
Do not use an isolation transformer for this check.
2. Connect a 1.5KΩ, 10W resistor, in parallel with 0.15  $\mu$  F capacitor, between each exposed metallic part on the set an a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

## ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
  2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
  3. Use only a grounded tip soldering iron to solder or unsolder ES devices.
  4. Use only an anti-static solder removal device classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
  5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
  6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
  7. Immediately before removing the protective material from the leads of replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
- CAUTION:** Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

## X-RADIATION

### WARNING

1. The potential source of X-Radiation in EVF sets is the High Voltage section and the picture tube.
2. When using a picture tube test jig for service, ensure that jig is capable of handling 10kV without causing X-Radiation.

**NOTE:** It is important to use an accurate periodically calibrated high voltage meter.

3. Measure the High Voltage. The meter (electric type) reading should indicate 2.5kV,  $\pm$  0.15kV. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

# **SECTION 1**

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## **BLOCK DIAGRAMS**

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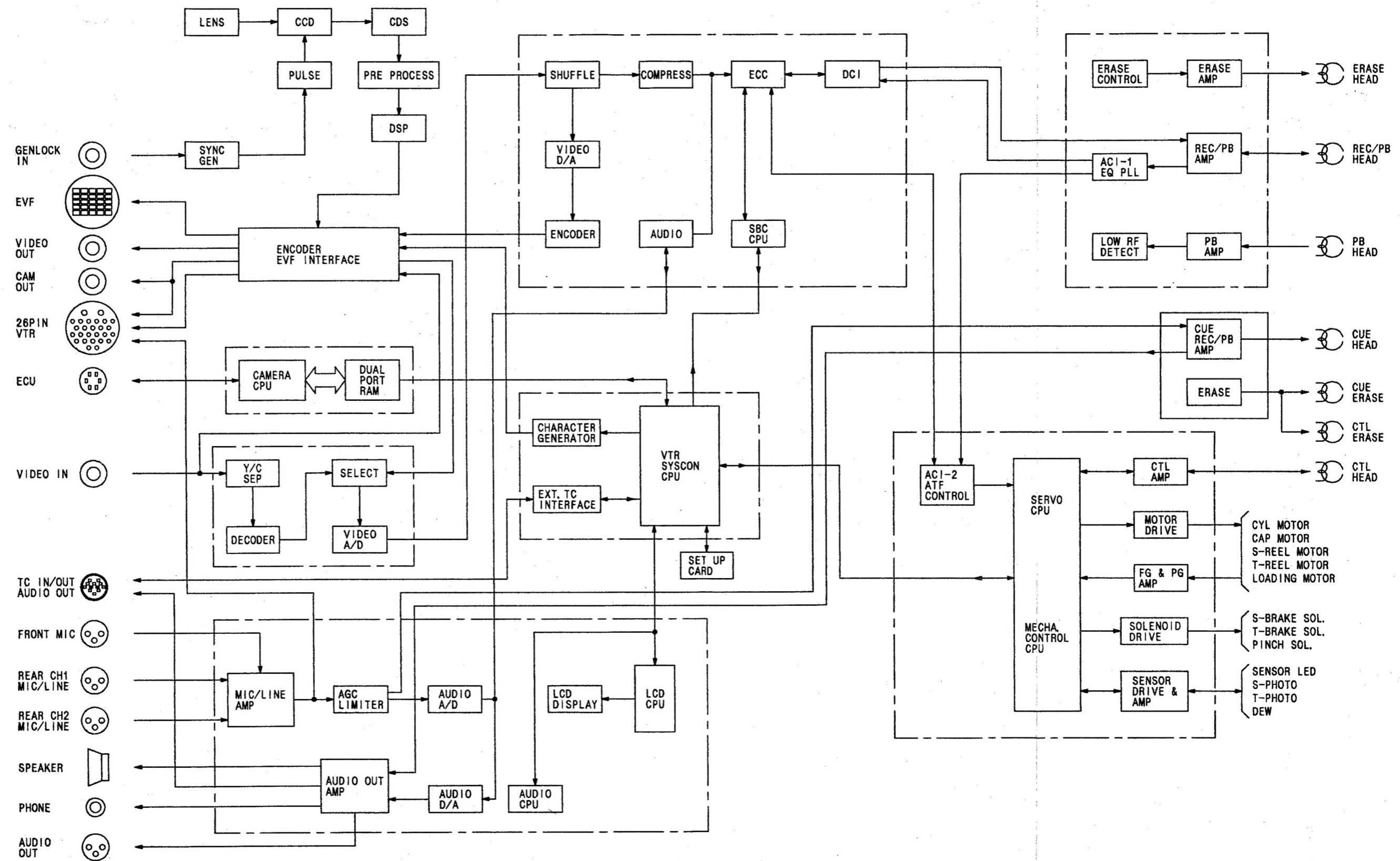
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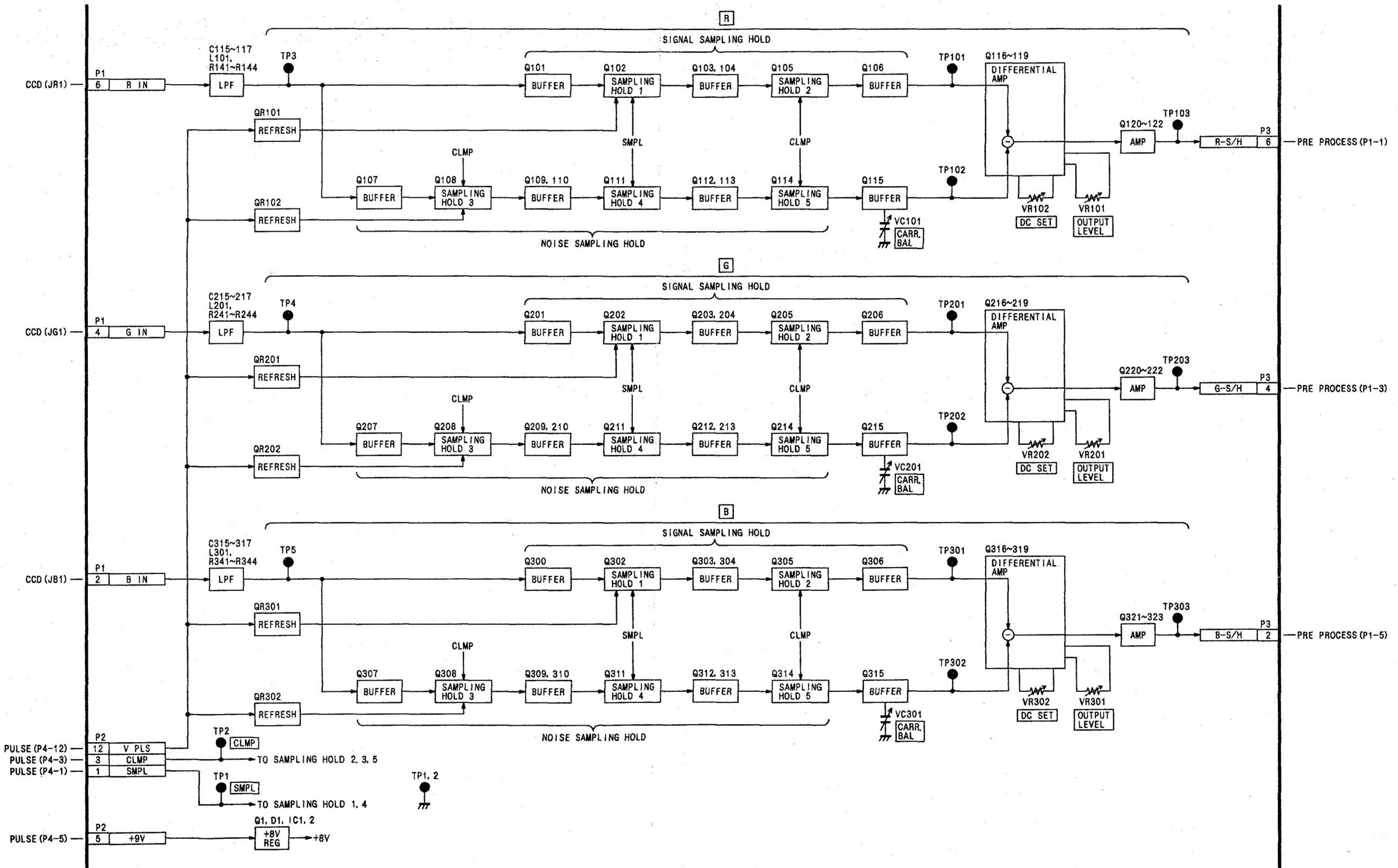
#### **1 . BLOCK DIAGRAMS**

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## OVERALL BLOCK DIAGRAM



## CDS BLOCK DIAGRAM



## CDS P.C.Board

CDS is the abbreviation of Correlated Double Sampling which smoothes CCD outputs.

Input signal, **R IN**, from CCD P.C.Board is processed with LPF. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

In upper way the sample pulse,**SMPL**, samples and holds the charge level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse,**SMPL**, samples and holds the noise level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **R-S/H**.

**VC101** is the VR to minimize career leak. **VR102** adjusts DC level, and **VR101** does output level.

Input signal, **G IN**, from CCD P.C.Board is processed with LPF. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

In upper way the sample pulse,**SMPL**, samples and holds the charge level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse,**SMPL**, samples and holds the noise level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **G-S/H**.

**VC201** is the VR to minimize career leak. **VR202** adjusts DC level, and **VR201** does output level.

Input signal, **B IN**, from CCD P.C.Board is processed with LPF. After that it has two ways. Upper one is for signal component process, lower one is for noise component.

In upper way the sample pulse,**SMPL**, samples and holds the charge level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of signal component.

In lower way the sample pulse,**SMPL**, samples and holds the noise level of signal component. The clamp pulse,**CLMP**, samples and holds the pedestal level of noise component.

The difference between signal component and noise component is output to Pre Process P.C.Board as **B-S/H**.

**VC301** is the VR to minimize career leak. **VR302** adjusts DC level, and **VR301** does output level.

## Pulse P.C.Board

This circuit makes those pulses which drive CCD.

**IC2** makes V-CCD Drive Pulse of **VA1~VA4,VB1~VB4**, Charge Pulse of **CH1,CH2** and Shutter Pulse of **CHS** from V Drive Pulse **CCD VD** supplied from Sync P.C. Board. Shutter speed is controlled by **SHUT A, SHUT B** and **SHUT C**. The logic table is located on the top left of the diagram.

**SLOW SHUTTER** of **IC7,IC8** and **IC9** make the shutter pulse used in 1/50 of shutter speed. V-CCD Drive Pulses are supplied to CCD P.C. Board as **XVA1~XVA2, XVB1~XVB4**.

**VR14** can shift H Drive, CCD HD, to change modulation.

The PLL which is composed of phase comparator in **IC2** and oscillator **X1** generates H-CCD Drive Pulse **H12** and **H34** in **IC1** locked to CCD HD. These are supplied to CCD P.C. Board as **XH1, XH2**.

Reset Pulse of **XR**, Clamp Pulse of **CLMP** and Sample Pulse of **SMPL** are generated in the same way and supplied to CCD P.C. Board.

OG Voltage of R/G/B depend on **VR10,VR11** and **VR12**. SUB Voltage depend on **VR7,VR8** and **VR9**.

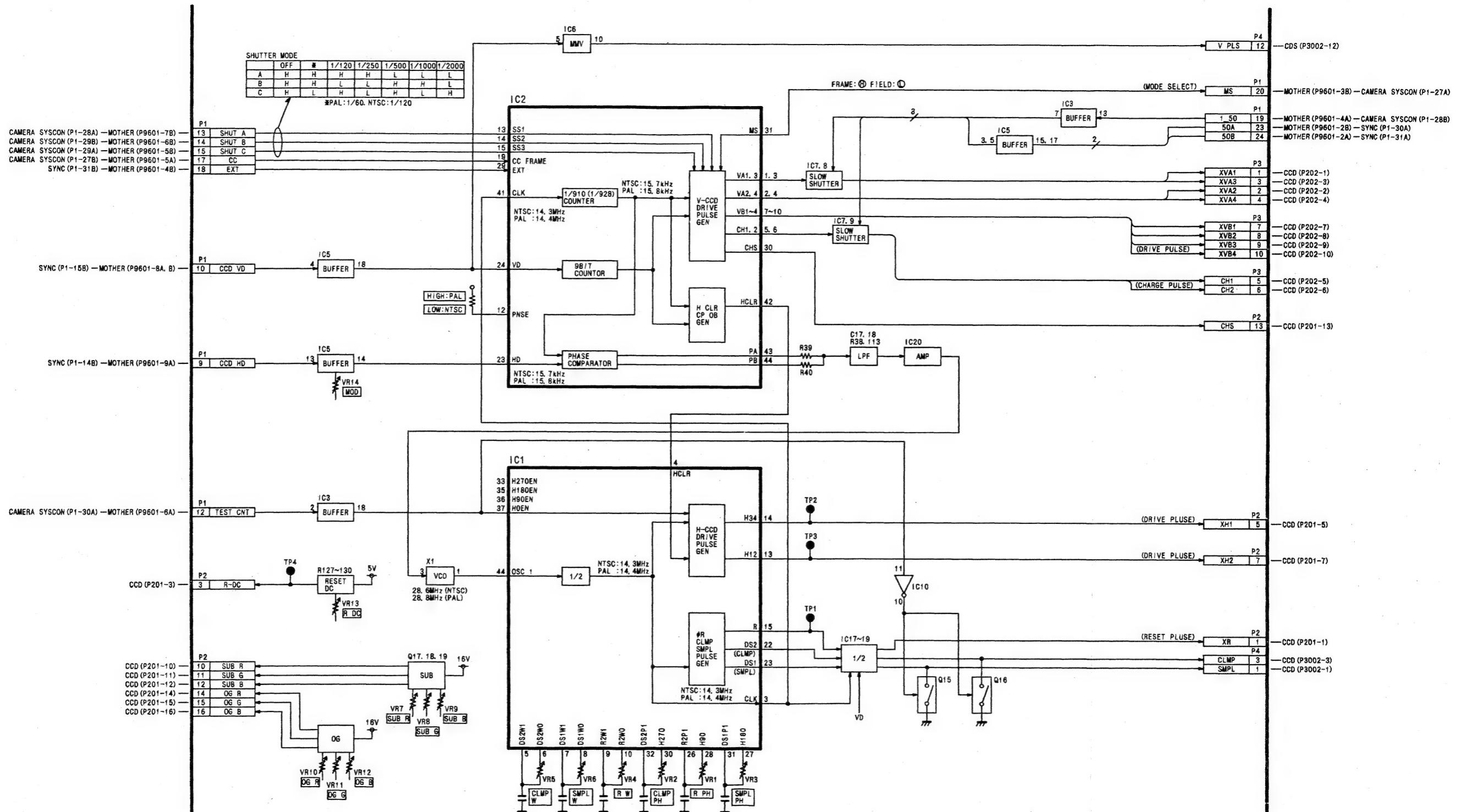
The width and phase of Sample Pulse are adjusted with **VR6** and **VR3**.

The width and Phase of Clamp Pulse are adjusted with **VR5** and **VR2**.

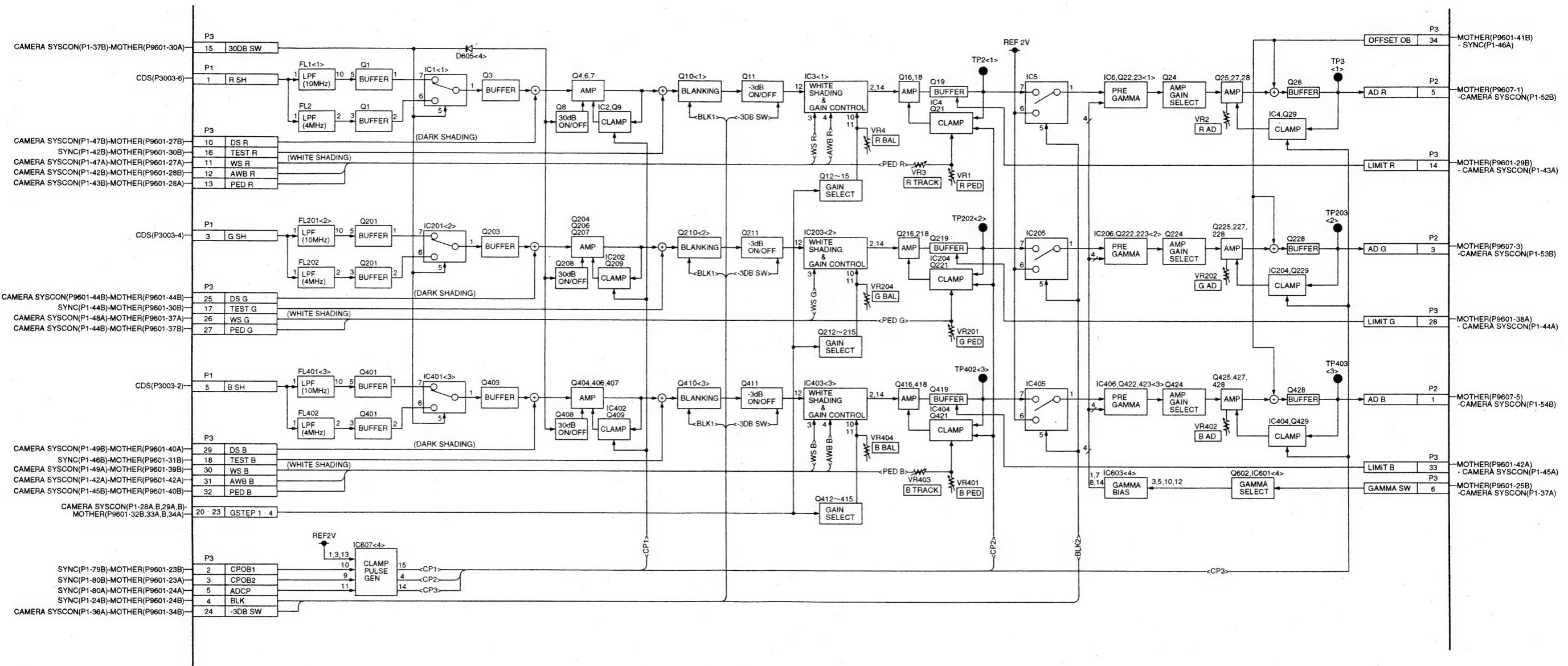
The width and Phase of Reset Pulse are adjusted with **VR4** and **VR1**.

DC voltage of Reset Pulse is adjusted with **VR13**.

# PULSE BLOCK DIAGRAM



# PRE PROCESS BLOCK DIAGRAM



## **Pre Process P.C.Board**

This circuit processes Dark Shading, White Shading, Pre Gamma and so on.

**R S/H** supplied from CDS P.C.Board is input to LPF,**FL1**. Another filter **FL2** thins reset pulses to read two pixels together when GAIN is set to 30dB. **IC1** is a switch prepared for this function. It selects 6th pin side in 30dB mode, otherwise does 7th pin. The switching signal is **30DB SW** supplied to 5th pin.

Dark Shading,**DS R**, is added to the output from **IC1**. The signal is adjusted in Gain at **Q4, 6 and 7** and selected with **TEST R** which is a RAMP signal for test.

**IC3** processes White Shading,**WS R**, and Auto White Balance,**AWB R**. **VR1** adjusts pedestal level. **VR3** adjusts pedestal tracking.

**IC5** processes Blanking. **IC6, Q22** and **Q23** process Pre Gamma. **VR2** adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as **AD R**.

**G S/H** supplied from CDS P.C.Board is input to LPF,**FL201**. Another filter **FL202** thins reset pulses to read two pixels together when GAIN is set to 30dB. **IC201** is a switch prepared for this function. It selects 6th pin side in 30dB mode, otherwise does 7th pin. The switching signal is **30DB SW** supplied to 5th pin.

Dark Shading,**DS G**, is added to the output from **IC201**. The signal is adjusted in Gain at **Q204, 206 and 207** and selected with **TEST G** which is a RAMP signal for test.

**IC203** processes White Shading,**WS G**, and Auto White Balance,**AWB G**. **VR201** adjusts pedestal level.

**IC205** processes Blanking. **IC206, Q222** and **Q223** process Pre Gamma. **VR202** adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as **AD G**.

**B S/H** supplied from CDS P.C.Board is input to LPF,**FL401**. Another filter **FL402** thins reset pulses to read two pixels together when GAIN is set to 30dB. **IC401** is a switch prepared for this function. It selects 6th pin side in 30dB mode, otherwise does 7th pin. The switching signal is **30DB SW** supplied to 5th pin.

Dark Shading,**DS B**, is added to the output from **IC401**. The signal is adjusted in Gain at **Q404, 406 and 407** and selected with **TEST B** which is a RAMP signal for test.

**IC403** processes White Shading,**WS B**, and Auto White Balance,**AWB B**. **VR401** adjusts pedestal level. **VR403** adjusts pedestal tracking.

**IC405** processes Blanking. **IC406, Q422** and **Q423** process Pre Gamma. **VR402** adjusts the level required before A/D conversion. Finally the signal is output to DSP P.C.Board as **AD B**.

## **CCD P.C.Board**

This Board has three CCDs and CCD drive circuits for RGB processes.

**IC101** and **IC102** make the drive pulses for R CCD.

**XVA1~4** generated in Pulse P.C.Board are input to **IC101**. Those pulses become V-CCD Drive Pulses for image area (**A1R~A4R**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**.

**XVB1~4** generated in Pulse P.C.Board are input to **IC102**. Those pulses become V-CCD Drive Pulses for storage area (**B1R~B4R**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**. **A1R~A4R** and **B1R~B4R** are supplied to **IC103,R** CCD.

**CH1** and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC101**. This is added to SUB voltage, **SUB R**, and supplied to **IC103, R** CCD. H-CCD Drive Pulses, **H1R** and **H2R**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC103, R** CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC103, R** CCD. The output signal from **R** CCD is supplied to CDS P.C.Board via connector **JR**.

**IC201** and **IC202** make the drive pulses for G CCD.

**XVA1~4** generated in Pulse P.C.Board are input to **IC201**. Those pulses become V-CCD Drive Pulses for image area (**A1G~A4G**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**.

**XVB1~4** generated in Pulse P.C.Board are input to **IC202**. Those pulses become V-CCD Drive Pulses for storage area (**B1G~B4G**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**. **A1G~A4G** and **B1G~B4G** are supplied to **IC203,G** CCD.

**CH1** and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC201**. This is added to SUB voltage, **SUB G**, and supplied to **IC203, G** CCD. H-CCD Drive Pulses, **H1G** and **H2G**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC203, G** CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC203, G** CCD. The output signal from **G** CCD is supplied to CDS P.C.Board via connector **JG**.

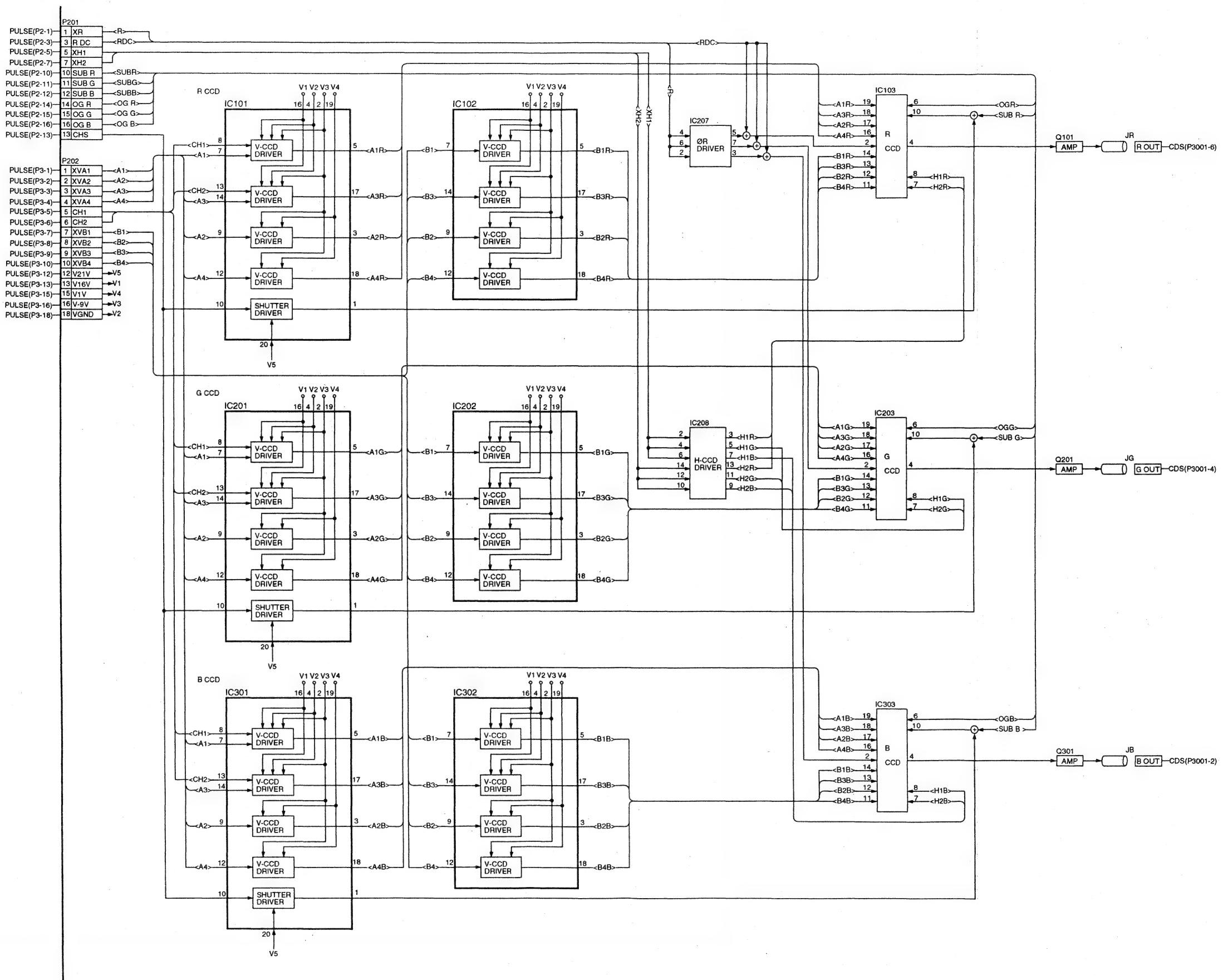
**IC301** and **IC302** make the drive pulses for B CCD.

**XVA1~4** generated in Pulse P.C.Board are input to **IC301**. Those pulses become V-CCD Drive Pulses for image area (**A1B~A4B**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**.

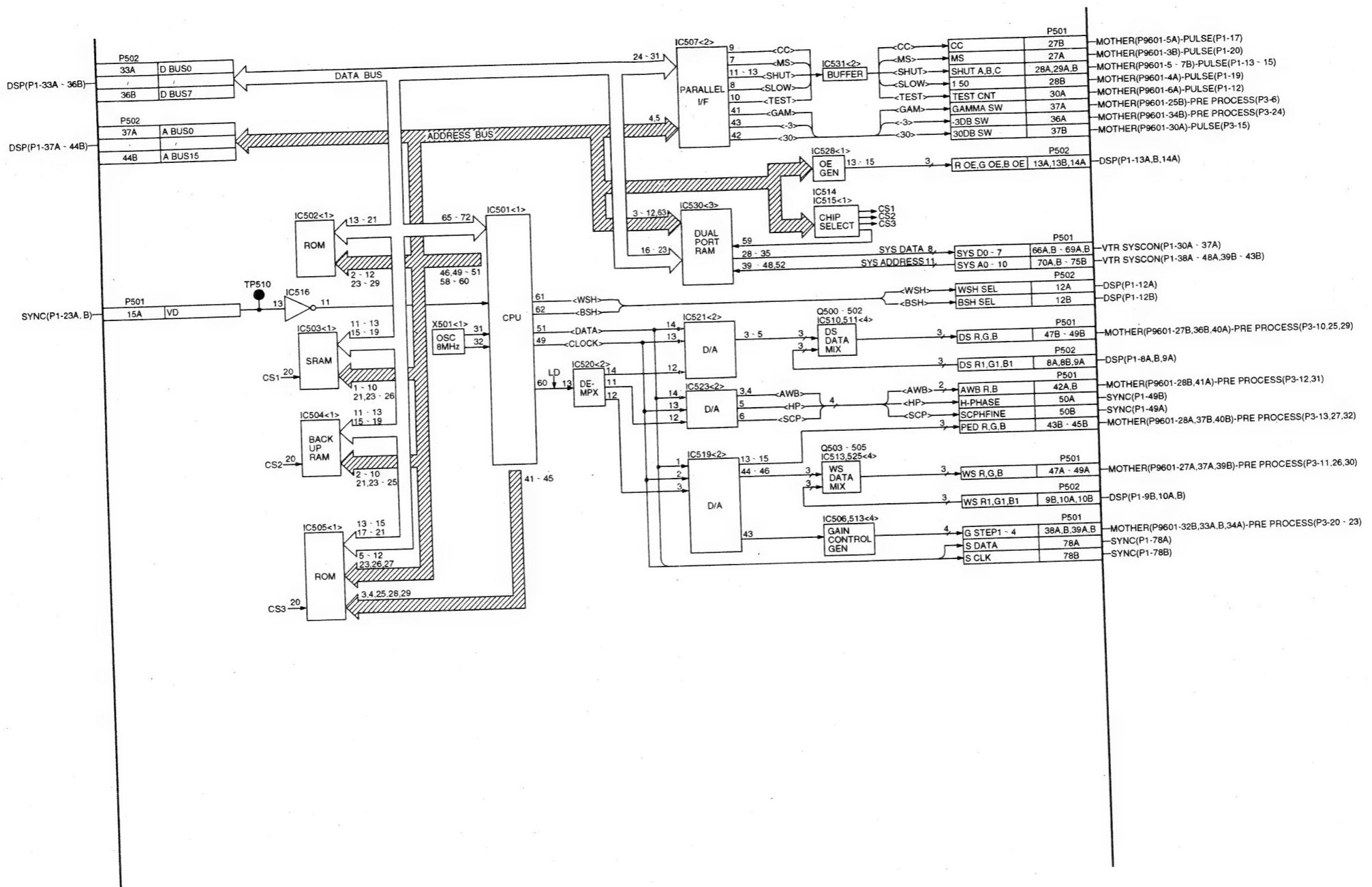
**XVB1~4** generated in Pulse P.C.Board are input to **IC302**. Those pulses become V-CCD Drive Pulses for storage area (**B1B~B4B**) with **V1(16V),V2(GND),V3(-9V)** and **V4(1V)**. **A1B~A4B** and **B1B~B4B** are supplied to **IC303,B** CCD.

**CH1** and **CH2** are charge pulses and added to V-CCD Drive Pulses for image area. **CHS** is shutter pulse and becomes a pulse of 21V in **IC301**. This is added to SUB voltage, **SUB B**, and supplied to **IC303, B** CCD. H-CCD Drive Pulses, **H1B** and **H2B**, are generated in **IC208** from **XH1** and **XH2** and supplied to **IC303, B** CCD. Reset Pulse is generated in **IC207** from **XR** and **R DC** and supplied to **IC303, B** CCD. The output signal from **B** CCD is supplied to CDS P.C.Board via connector **JB**.

## CCD BLOCK DIAGRAM



## CAMERA SYSCON BLOCK DIAGRAM



## **Camera Syscon P.C.Board**

This circuit which is composed of following ICs controls Camera unit and EVR.

|              |  |
|--------------|--|
| <b>IC501</b> | SYS CON CPU                                      |
| <b>IC502</b> | SYS CON ROM                                      |
| <b>IC504</b> | Back-up RAM                                      |
| <b>IC507</b> | Parallel I/F to change Mode                      |
| <b>IC530</b> | Dual Port RAM for communication with VTR SYS CON |

**IC521** is D/A converter for Dark Shading data. This is supplied to **DS DATA MIX** which is composed of **Q500 ~ Q502**, **IC510** and **IC511**. The data is added to RGB of **DS R1,G1,B1** and output as **DS R,G,B**.

**IC519** is D/A converter for White Shading data. This is supplied to **WS DATA MIX** which is composed of **Q503 ~ Q505**, **IC513** and **IC525**. The data is added to RGB of **WS R1,G1,B1** and output as **WS R,G,B**.

The data of AWB, H phase and sub-carrier are D/A converted at **IC523**. Each of those is output as **AWB ,R B, H-PHASE** and **SCPHASE**.

## **DSP P.C.Board**

DSP is the abbreviation of Digital Signal Processor and processes Blemish Compensation, Gamma, Knee, Masking, Detail and so on at IC101 and IC102.

AD R,AD G and AD B supplied from Pre Process P.C.Board are A/D converted to 10bits of parallel signals at IC4,IC5 and IC6. VR1 adjusts the reference voltage for A/D conversion. R,G, and B converted to digital signal are supplied to IC101. On the other hand Dark Shading data is supplied to IC301,SRAM, via IC302 and IC305. White Shading data is also supplied to IC304,SRAM, via IC302 and IC305. Both are D/A converted at IC303 and IC306 and then supplied to Camera Syscon P.C.Board.

R, G, B input to IC101 are processed with Blemish Compensation, Gamma, Knee and Masking. Then they are supplied to IC102. At the same time the detail signal made inside IC101 are processed with Level Dependent, Dynamic Noise Suppress and Dynamic Detail at IC102.

1/2 pitch of CCD spatial offsets is compensated in IC102. Moreover Chroma Detail and Fresh(Skin) Detail are produced from R,G and B and then added to R,G and B as well as ordinary details mentioned above.

The multiplexers after 1/2 pitch of CCD spatial offsets compensation switch input signal or internal color bar.

After that Clipping and Blanking are performed.

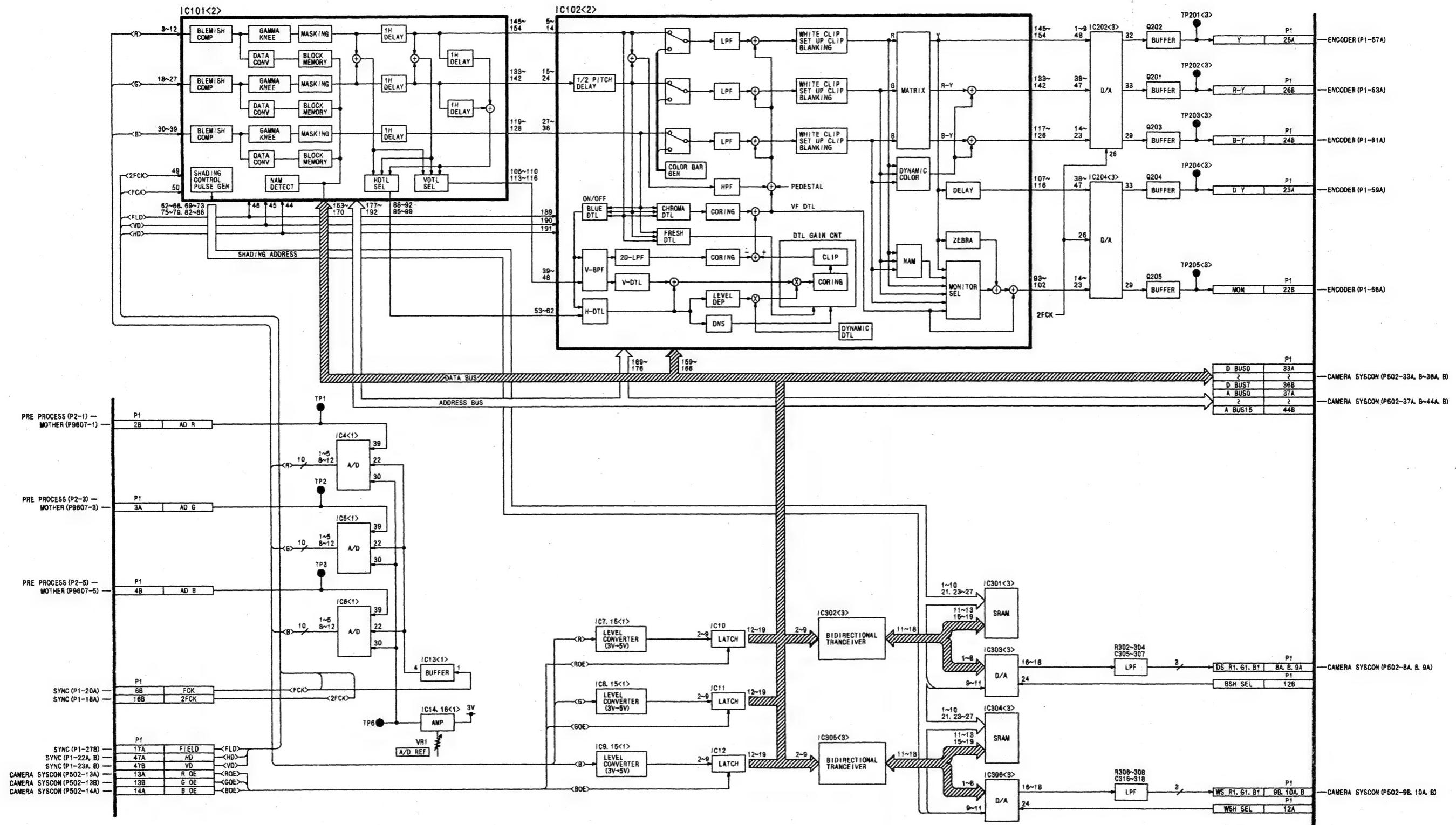
MATRIX converts RGB to Y/R-Y/B-Y.

Outputs from 145th~154th pins are Y, 133th~142nd pins are R-Y, and 117th~126th pins are B-Y. All of those are converted to analog signals at IC202 and supplied to Encoder P.C.Board.

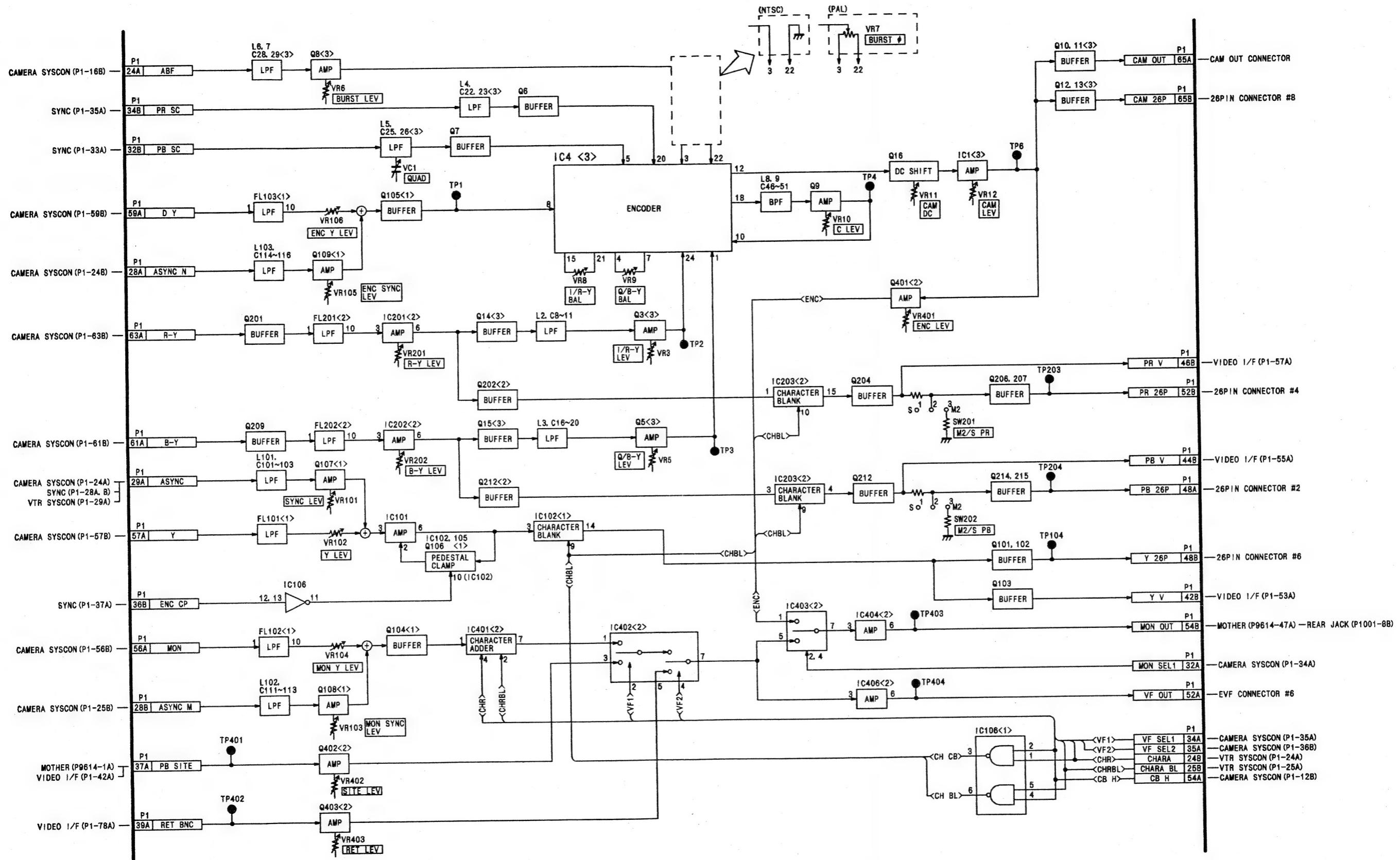
D Y output from 107th~116th pins are delayed Y signal which is required to encode composite signal in Encoder P.C.Board.

Outputs from 93th~102nd pins are Y,R,G,B or NAM for EVF which have ZEBRA. This is converted to analog signal at IC204 and supplied to Encoder P.C.Board.

## DSP BLOCK DIAGRAM



# ENCODER BLOCK DIAGRAM



## Encoder P.C. Board

Encoder converts inputs from DSP to composite and component signals.

**IC4** is an encoder. **D Y**(Y for composite) is input to **8th** pin, **R-Y** to **24th** pin, and **B-Y** to **1st** pin.

**VR106** adjusts the level of **D Y**. Sync. **ASYNC N** is added to **D Y**. **D Y** goes to **IC4**. **VR105** adjusts the level of sync.

**R-Y** is adjusted in level with **VR201** and supplied to **IC4**. On the other hand it is output as **Pr** signal **PR V**, **PR 26P**. **PR V** is to be recorded in AJ-D700. **PR 26P** is to be output via 26 pins connector(Option).

**SW201** selects M2 level or  $\beta$  cam level for 26 pins connector.

**B-Y** is adjusted in level with **VR202** and supplied to **IC4**. On the other hand it is output as **Pb** signal **PB V**, **PB 26P**. **PB V** is to be recorded in AJ-D700. **PB 26P** is to be output via 26 pins connector(Option).

**SW202** selects M2 level or  $\beta$  cam level for 26 pins connector.

Sub-carriers are supplied to **IC4** as **PR SC** and **PB SC**. **ABF** is Burst signal and is adjusted in level with **VR6**.

**R-Y** and **B-Y** are modulated to **C** signal at **IC4**. **VR10** adjusts the **C** level. **C** signal returns to **IC4** and encoded with **Y**. Mixed signal is output from **12th** pin. After **DC(VR11)** and **level(VR12)** are adjusted, composite signal has three ways; **CAM OUT**, **CAM 26P** for 26 pins connector, **MON OUT** for VIDEO OUT connector. **VR401** adjusts the level of **MON OUT**.

**VR102** adjusts the level of ordinary **Y**. Then sync., **ASYNC**, is added to **Y**. **VR101** adjusts the level of sync. After pedestal is added at **IC101**, **Y** is output as **Y V** and **Y 26P**. **Y V** is to be recorded in AJ-D700. **Y 26P** is to be output via 26 pins connector(Option).

**MON** is **Y,R,G,B** or **NAM** for **EVF** and is adjusted in level with **VR104**. Sync., **ASYNC M**, is added to that signal. Sync level is adjusted with **VR103**. **IC401** adds superimpose. **IC402** selects **PB SITE** for playback or **RET BNC** for Return. After that the signal is supplied to **EVF** as **VF OUT**. On the other hand **IC403** selects **VF** signal or composite signal for VIDEO OUT connector at **IC403**. The selected signal is supplied to Rear Jack P.C. Board as **MON OUT**.

**VR402** adjusts the level of **PB** signal.

**VR403** adjusts the level of **RETURN** input.

## **Sync. P.C.Board**

This circuit is composed of IC27 and IC11.

**GL IN** is input from GEN LOCK IN connector. Composite sync. separated at IC34 is supplied to **98th** pin of IC27 and **85th** pin of IC11. Burst signal is separated at IC2 and IC3 and supplied to **69th** pin of IC27. H SYNC. is separated from the sync. input from **98th** pin of IC27. Then H SYNC. is output from **101st** pin. This is adjusted in phase at IC22 and input again from **43th** pin.

X4 located at left side of diagram generates reference 4FSC. H sync. is generated based on that 4FSC. This H sync. or HR, external input sync. input from **45th** pin is selected at IC27. Selected signal is output from **46th** pin as HO. X1 located at top of diagram generates 2FCK locked to HO and then supplied to IC11.

IC11 generates clocks which is used in camera unit and locked to that 2FCK.

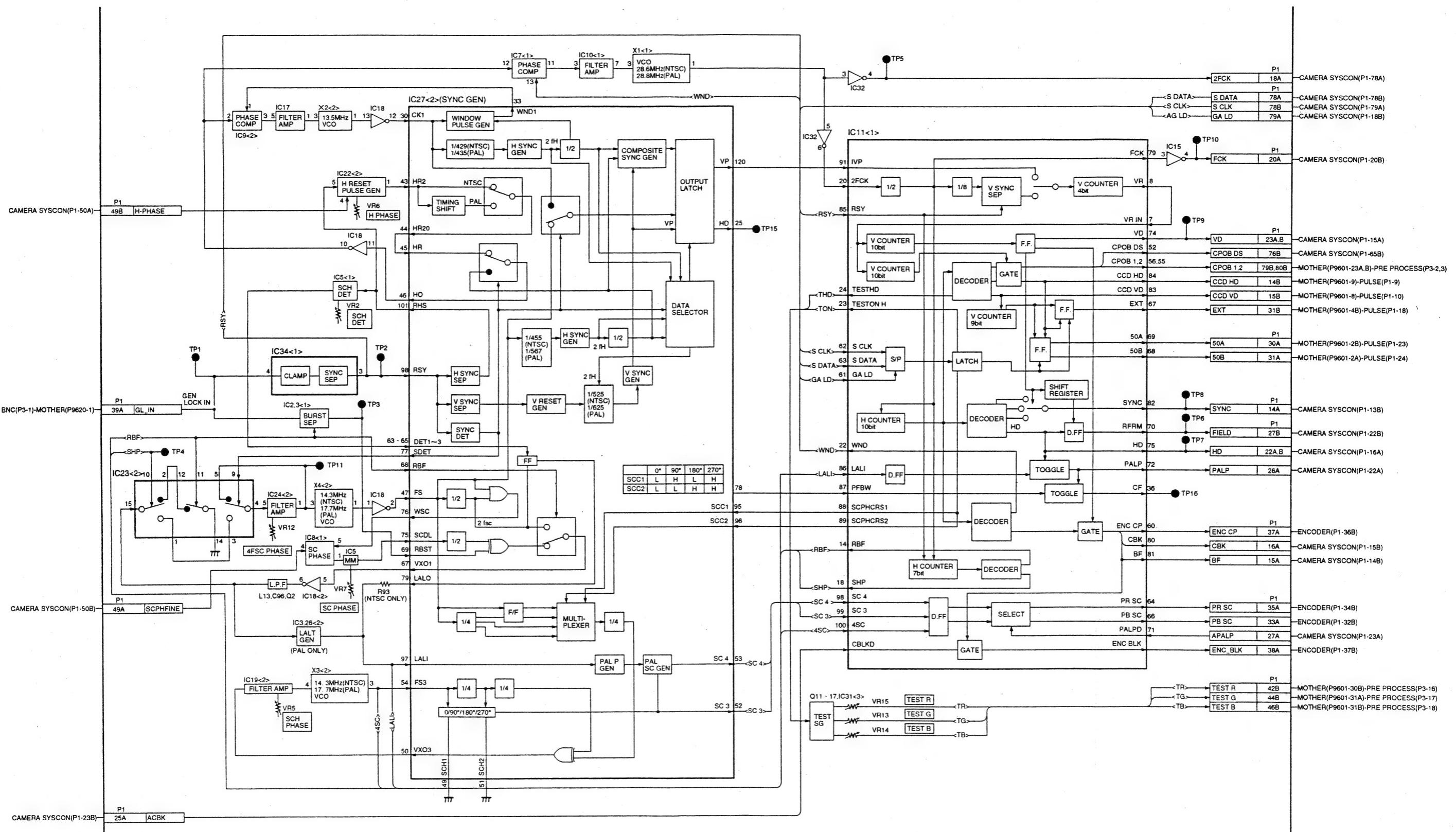
PLL located at top left of diagram which is composed of IC9 of phase comparator and X2 of 13.5MHz oscillator drives IC27.

PLL located at bottom left of diagram which is composed of IC19 of phase comparator and X3 of oscillator adjusts SCH.

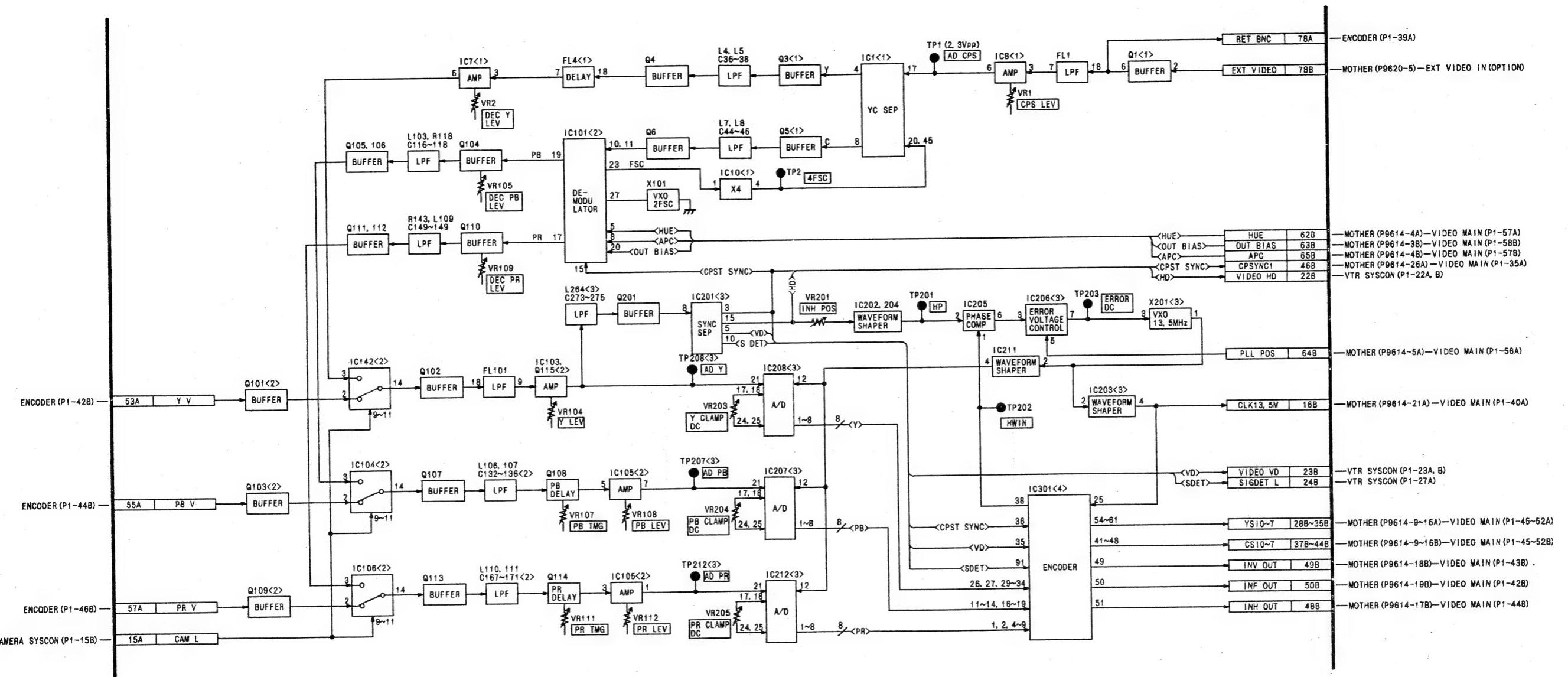
The signals at **95th** and **96th** pins of IC27 are used for sub-carrier adjustment.

Q11~Q17 and IC31 generate Ramp signal for testing which is adjusted in level with VR13~VR15.

# CAMERA SYNC BLOCK DIAGRAM



## VIDEO I/F BLOCK DIAGRAM



## **Video I/F P.C. Board**

VIDEO I/F is the interface between camera unit and VTR unit.

**EXT VIDEO** is external video input from VIDEO IN connector. This is supplied to Encoder as Return signal, **RET BNC**, and also supplied to IC1 for Y/C separation after level adjustment with **VR1**. Y is adjusted in level with **VR2** and supplied to IC142. C is demodulated at IC101. Pb is adjusted in level with **VR105** and supplied to IC104. Pr is adjusted in level with **VR109** and supplied to IC106.

**Y V** is input from Encoder. IC142 selects Y V or Y of external video input. After VR104 adjusts the level, Y is converted to digital signal at IC208. DC level of clamp depends on **VR203**.

Sync. is separated from Y at IC201. PLL is composed of IC205 of phase comparator, X201 of 13.5MHz oscillator and IC301. This PLL generates the reference clock locked to input signal.

**PB V** is input from Encoder. IC104 selects PB V or Pb of external video input. After VR107 adjusts the timing and VR108 adjusts the level, Pb is converted to digital signal at IC207. DC level of clamp depends on **VR204**.

**PR V** is input from Encoder. IC106 selects PR V or Pr of external video input. After VR111 adjusts the timing and VR112 adjusts the level, Pr is converted to digital signal at IC212. DC level of clamp depends on **VR205**.

**Y, Pb and Pr** converted to 8bits of digital signal are supplied to IC301. Pb and Pr are mixed and supplied to Video Main P.C. Board as **YSI** and **CSI**. Each of those is 8bits of digital signal.

**INH OUT** is the pulse locked to input signal, which has the frequency of H. **INV OUT** is the pulse locked to input signal, which has the frequency of V. **INF OUT** is the pulse locked to input signal, which has the frequency of frame.

**S DET** output from IC201 detection signal which is LOW when sync. is detected in external input.

## **VTR Syscon P.C.Board**

This circuit is composed of CPU, Parallel I/O, Time Code and Character Generator.

Inputs from the operation panel are ZEBRA, PLAY, STOP, FF, REW, EJECT, START, RET, SHUT, AWB and ABB SWs. Those signals are supplied to IC1 of CPU, via IC201 of Parallel I/O.

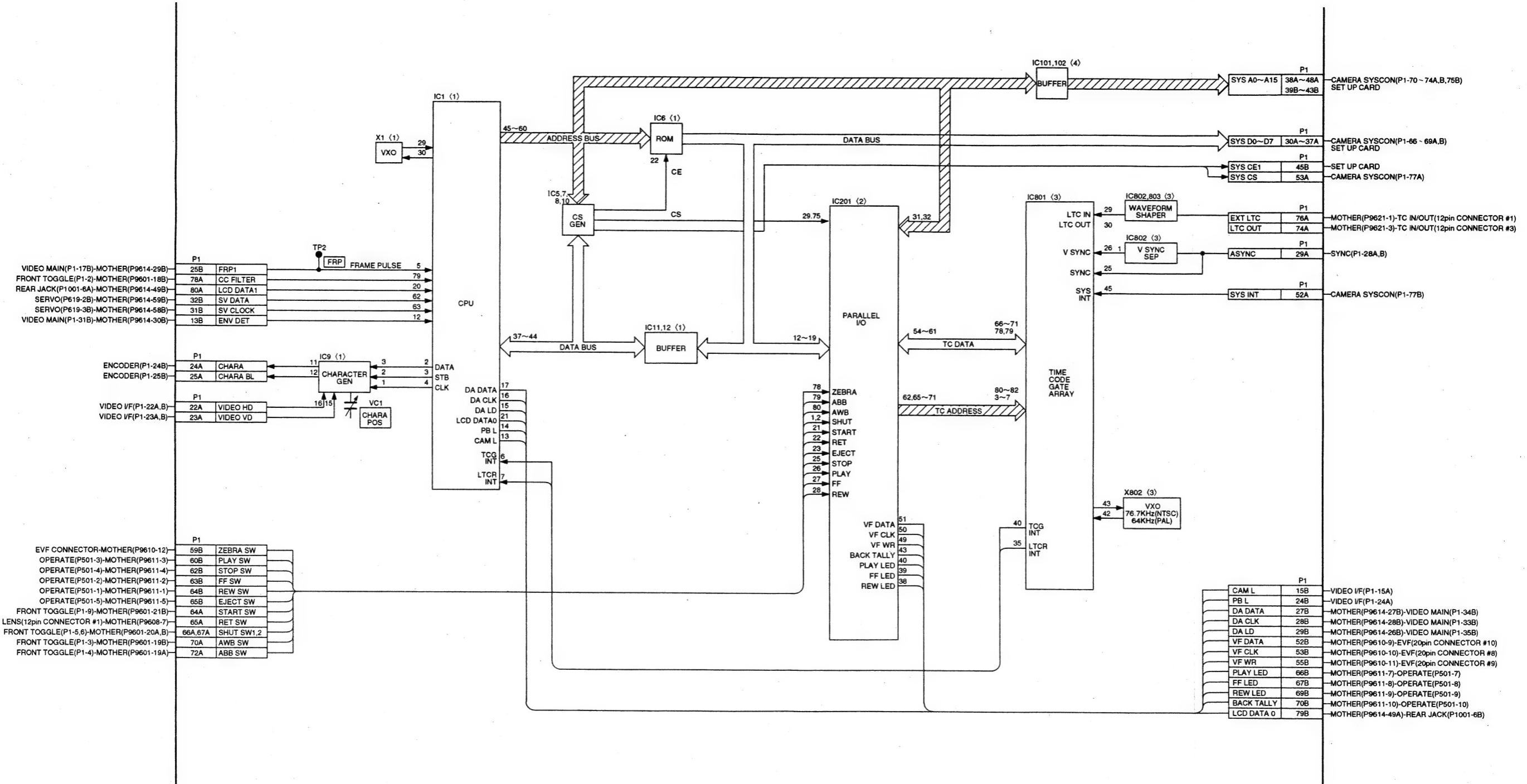
VTR Syscon and Camera Syscon communicate by SYS A0~A15 and SYS D0~D7. SYS A0~A15 are address lines. SYS D0~D7 are data lines.

**IC9** generates character. The character is supplied to Encoder P.C.Board.

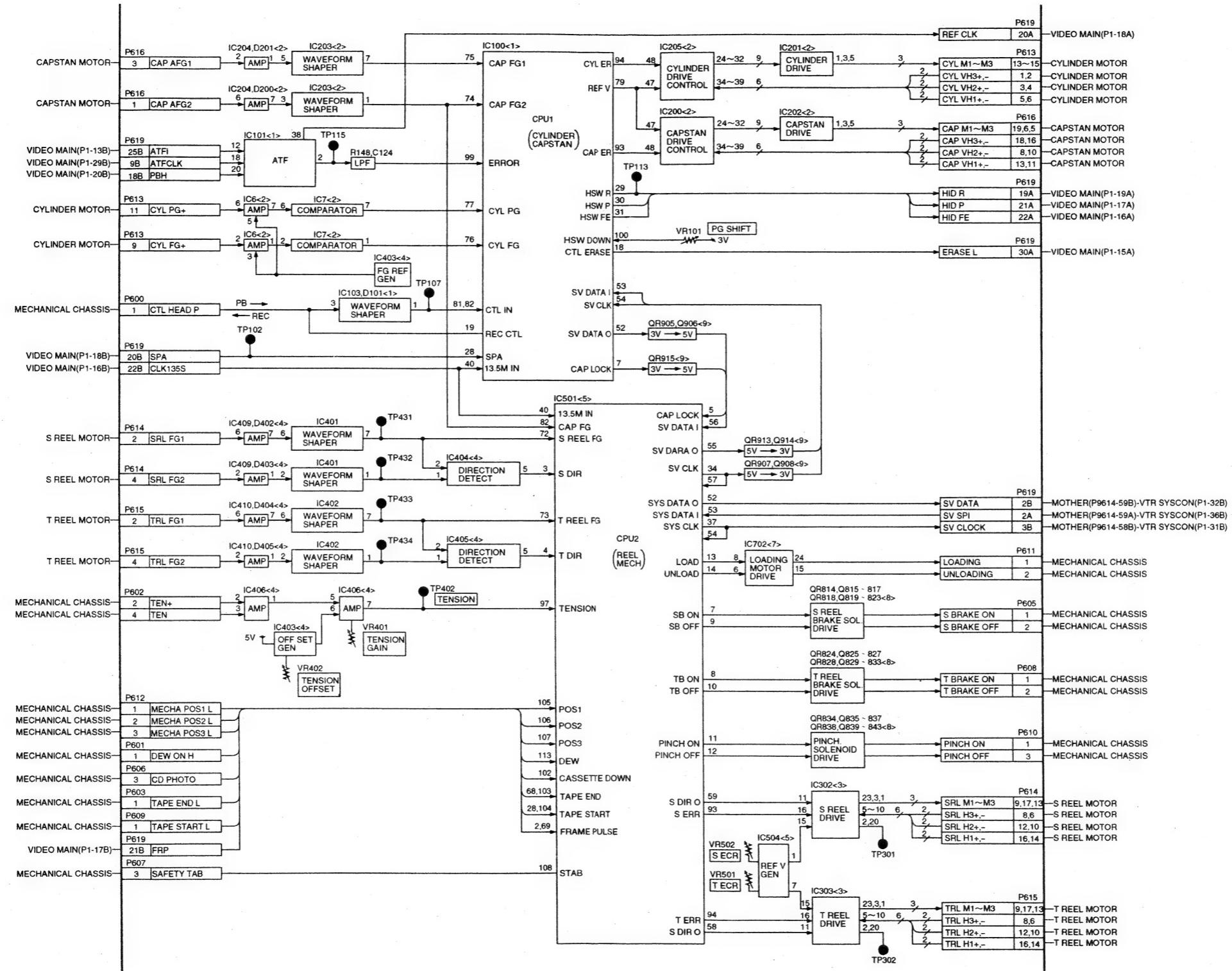
**IC801** is time code gate array which includes time code reader and generator. 29th pin and 30th pin are IN/OUT for external TC, which are supplied to 12 pins Multi Connector.

**IC6** is Syscon ROM.

# VTR SYSCON BLOCK DIAGRAM



# SERVO BLOCK DIAGRAM



## Servo P.C.Board

This circuit has two CPUs. CPU1 controls cylinder and capstan. CPU2 controls reel and mechanism. CAP AFG1 and CAP AFG2 are capstan FGs. Those are supplied to IC100 of CPU1. CAP M1~M3 drive the capstan. CAP VH1~VH3 are fed back to CPU1.

CYL FG+ is cylinder FG. CYL PG+ is cylinder PG. Those are supplied to IC100 of CPU1. CYL M1~M3 drive the cylinder. CYL VH1~VH3 are fed back to CPU1.

HID R is R/P HSW. HID P is PB HSW. Played back CTL is input as CTL HEAD P. Recording CTL is also output as CTL HEAD P. VR101 adjusts PG shifter which shifts HSW timing.

SRL FG1 and SRL FG2 are S-reel FGs. Those are supplied to IC501 of CPU2. SRL M1~M3 drive the S-reel. SRL H1~H3 are fed back to CPU2.

TRL FG1 and TRL FG2 are T-reel FGs. Those are supplied to IC501 of CPU2. TRL M1~M3 drive the T-reel. TRL H1~H3 are fed back to CPU2.

IC504 generates reference voltages which are compared with error voltages, S ERR and T ERR. Reference voltages depend on VR501 and VR502.

TEN+ and TEN- are input from tension sensor. VR401 adjusts tension gain. VR402 adjusts tension offset.

### Abbreviations

|         |              |
|---------|--------------|
| ER, ERR | ERROR        |
| DIR     | DIRECTION    |
| SV      | SERVO        |
| SB      | S-REEL BRAKE |
| TB      | T-REEL BRAKE |
| POS     | POSITION     |

## RF P.C. Board

(For recording) Input is HSE.(Top left) EXT CW is CW which is input from connector P2 when measuring C/N ratio. IC1 selects HSE or EXT CW. VR200 adjusts the duty of REC data at IC208. Q208 and Q209 are recording amplifiers for L ch. REC CUR L adjusts recording current(L ch). REC FRE L adjusts frequency characteristics(L ch). Q202~Q205 switch mode REC or PB in L ch. RP HEAD L P and N are output to drum.

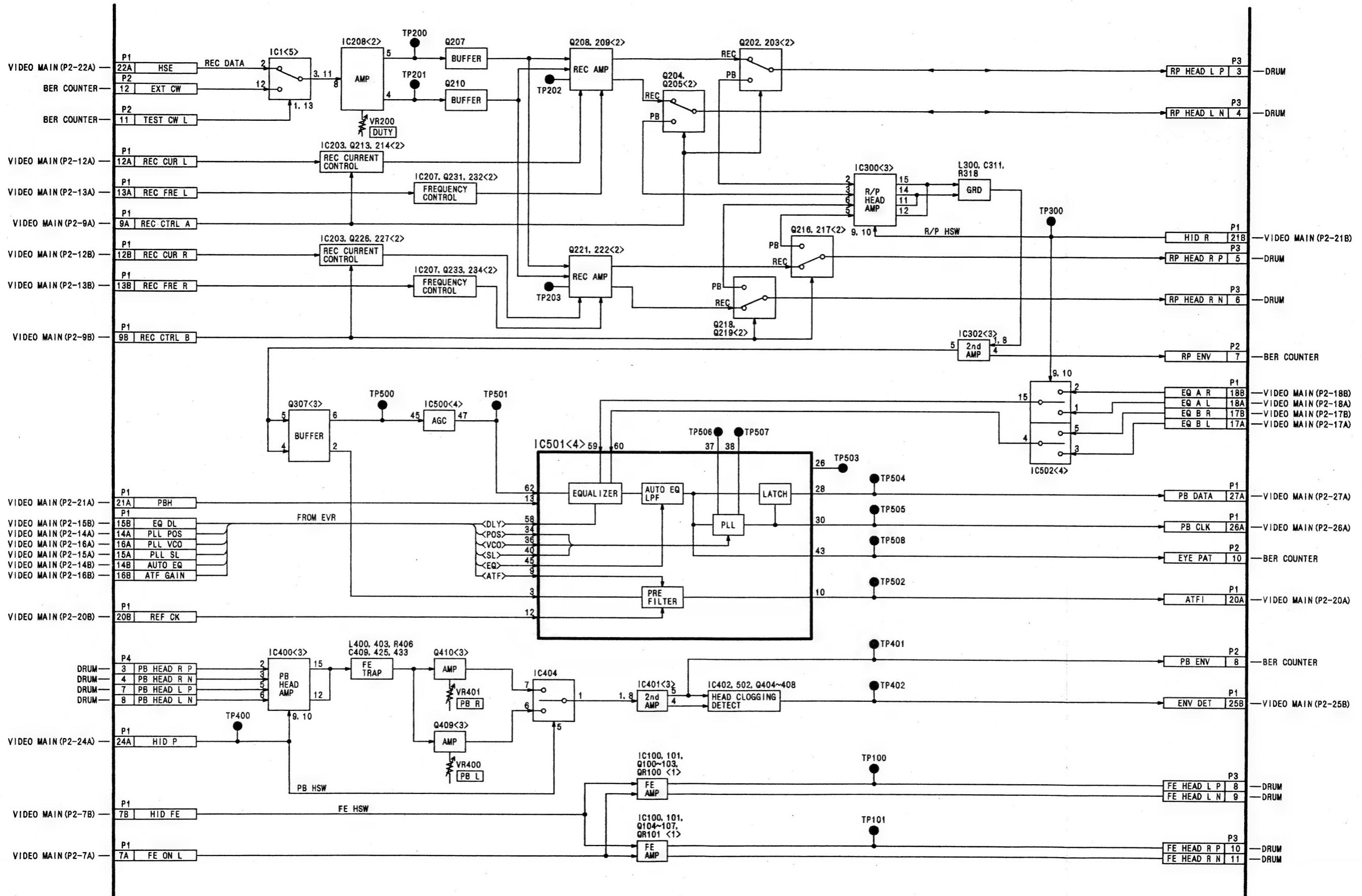
Q221 and Q222 are recording amplifiers for R ch. REC CUR R adjusts recording current(R ch). REC FRE R adjusts frequency characteristics(R ch). Q216~Q219 switch mode REC or PB in R ch. RP HEAD R P and N are output to drum.

(For playback) RP HEAD L P and N are input from drum for L ch and supplied to IC300 of R/P Head Amp via Q202~Q205. RP HEAD R P and N are input from drum for R ch and supplied to IC300 of R/P Head Amp via Q226~Q219. L ch and R ch are multiplexed at IC300 by HID R which is R/P HSW. Both channels data are supplied to IC501 and equalized by EVR data which are EQ DL, PLL POS, PLL SL, AUTO EQ, EQ  $\alpha$  R, EQ  $\alpha$  L, EQ  $\beta$  R and EQ  $\beta$  L. Outputs from IC501 are PB DATA and PB CLK.

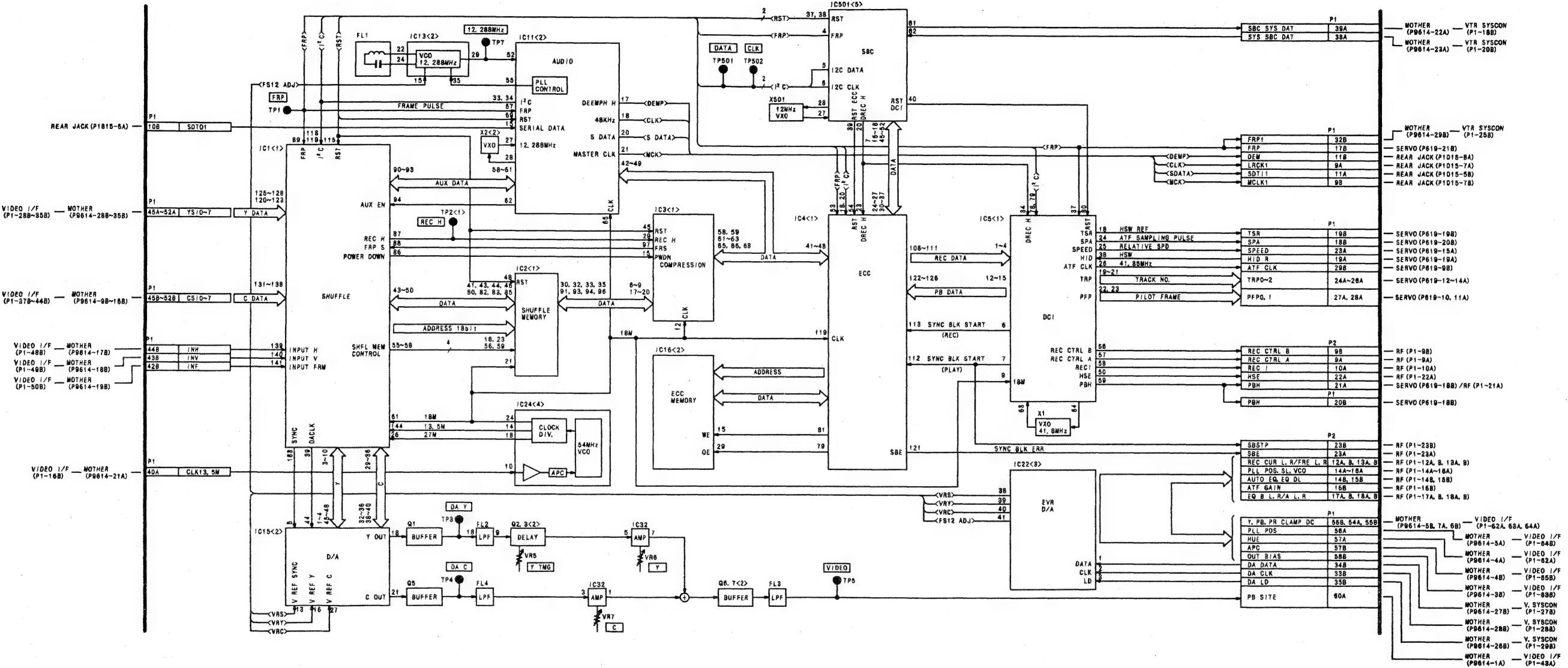
PB HEAD R P and N and PB HEAD L P and N are supplied to IC400 which multiplexes R ch and L ch by HID P of PB HSW. Monitoring those signals detects head clogging. Information of head clogging is supplied to VIDEO MAIN P.C. Board as ENV DET. VR400 and VR401 adjusts detection levels. FE TRAP traps the frequency of A/C Head erase current.

RP ENV, PB ENV and EYE PAT are available at BNCs of B.E.R.Counter.

## RF BLOCK DIAGRAM



# VIDEO MAIN BLOCK DIAGRAM



## **Video Main P.C.Board**

This circuit processes shuffling, compression, ECC and 24-25 conversion for recording. In addition to this it makes a reverse process for playback.

(For recording) The Y to be recorded is input to IC1, SHUFFLE, as YSI0~7. The C to be recorded is also input to IC1, SHUFFLE, as CSI0~7. IC2 is a shuffling memory. IC24 supplies the clocks for IC1. Both signals of VIDEO are shuffled and supplied to IC3 to be compressed.

Audio serial data, SDTO1, is supplied from AUDIO LCD P.C.Board to IC11 via Rear Jack P.C.Board.

Audio signal is shuffled at IC3. Video data is compressed at IC3. Both are multiplexed and supplied to ECC of IC4. Video data is deshuffled at IC4. ECC codes are added to video and audio data, which are supplied to IC5.

IC5 is DCI which means the IC for digital signal processing. DCI makes two kinds of pilot signal for ATF. One has the frequency of 465kHz, the other has the frequency of 697.5kHz. DCI also makes 24-25 conversion.

HSE is the data to be recorded. REC CTRL A and B switch recording c

IC1, SHUFFLE, has another outputs of Y and C which are supplied to IC15 of D/A converter to monitor playback picture. Y is adjusted in timing with VR5 before mixing with C. Y level is adjusted with VR6 at IC32. C level is adjusted with VR7 at IC32. PB SITE is playback signal supplied to VIDEO I/F.

(For Playback) During playback the same circuit works the opposite process to recording.

(Others) IC22 is D/A converter for EVR data. IC501 is SBC which receives sub code data from VTR Syscon P.C.Board and adds it to video data.

## Audio LCD P.C.Board

This circuit has three kinds of audio inputs.

**CH1 IN H** and **CH1 IN C** are supplied to **RY101** where attenuator ON/OFF is switched. **CH2 IN H** and **CH2 IN C** are supplied to **RY201** where attenuator ON/OFF is switched. **F MIC IN H** and **F MIC IN C** are inputs from front microphone. When phantom microphone is used, 48V is supplied based on **SW 12V**. All of those are supplied to **IC1** of MIC AMP where gains are controlled by **IC603**, Audio CPU.

**CH1** is output from the **24th** pin of **IC1**. **SW701** switches balance or unbalance output for 26pin connector. **IC15** of HPF cuts the wind noise. **IC4** switches the HPF ON/OFF. **VR101** coarsely adjusts the level. **FRONT VR** which comes from the VR in front of camera recorder also adjusts CH1 recording level. **IC105** switches the mode. **VR102** adjusts recording level. **IC6** and **Q4** of TEST SG generate 1kHz of tone signal. The level of test tone is adjusted with **VR2**. **IC105** switches test tone or input audio. The signal to be recorded is A/D converted at **IC8** and supplied to Video Main P.C.Board via Rear Jack P.C.Board as **SDTO1**.

**CH2** is output from the **13th** pin of **IC1**. **IC15** of HPF cuts the wind noise. **IC4** switches the HPF ON/OFF. **VR201** coarsely adjusts the level. **IC205** switches the mode. **VR202** adjusts recording level. **IC205** switches test tone or input audio.

The audio signal for output is input as **SDTI1** from Video Main P.C.Board via Rear Jack P.C.Board. It is D/A converted at **IC8** and supplied to MIX AMP and MONITOR SELECT. **IC6** and **IC10** of MIX AMP mixes CH1 and CH2. **IC11** selects CH1, CH2 or MIX as monitor outputs L ch and R ch. Selected signal or cue audio is selected at **IC12**. Monitor outputs are supplied as **MON VR IN L** and **R** to ALARM/MONITOR P.C.Board. They return as **MON VR OUT L** and **R** with alarm, **ALARM VR OUT**. **HP OUT L** and **R** are for headphone. **SP OUT** is for speaker.

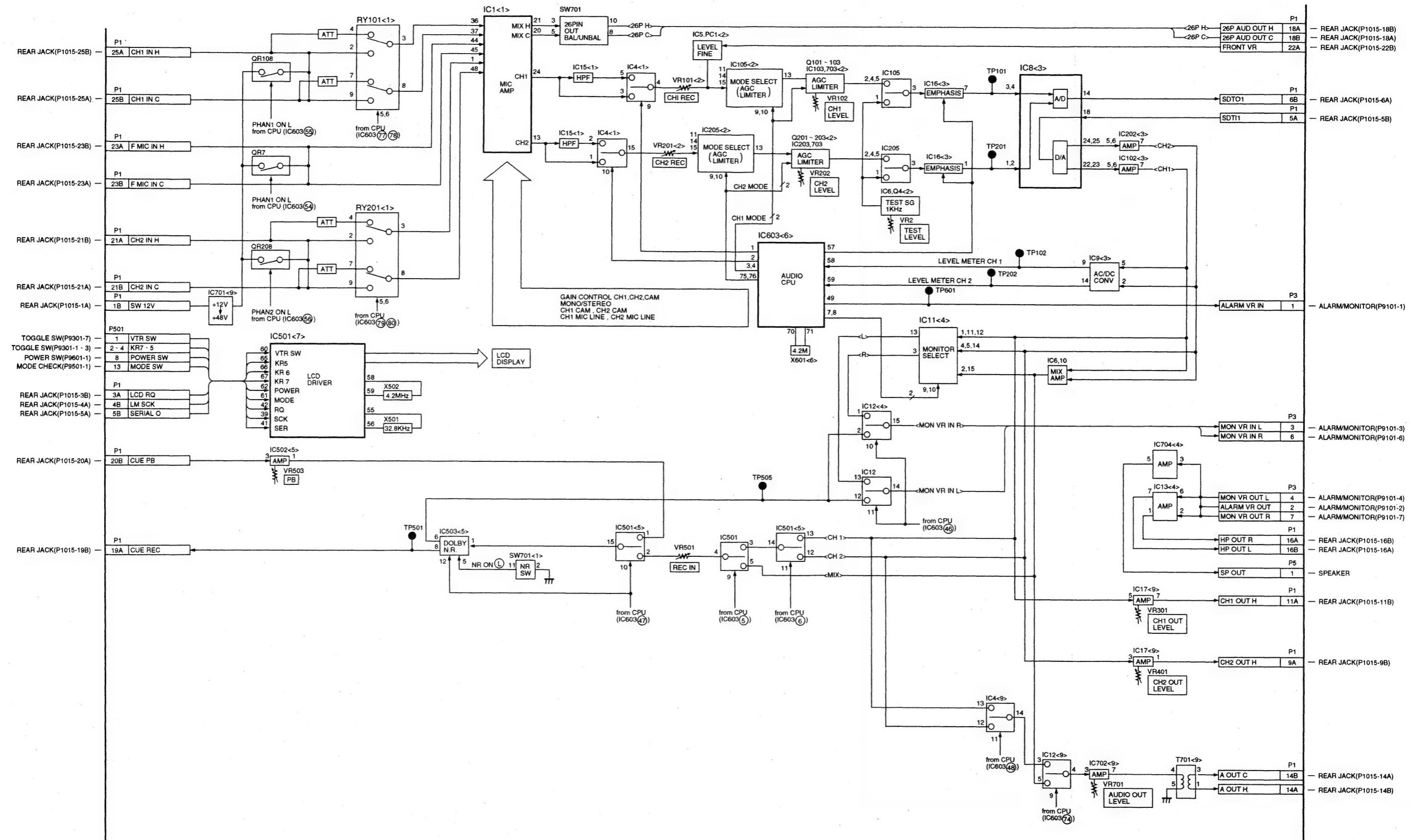
**IC17** adjusts **CH1 OUT H** and **CH2 OUT H** level with **VR301** and **VR401**. Those outputs, **CH1 OUT H** and **CH2 OUT H**, are supplied to 12pin multi connector.

**IC501** selects recording signal for CUE audio. **VR501** adjusts recording level in CUE audio. **VR503** adjusts playback level in CUE audio.

**A OUT H** and **C** are supplied to Rear Jack P.C.Board for **AUDIO OUT**. **VR701** adjusts the level.

**IC501** drives LCD.

# AUDIO LCD BLOCK DIAGRAM



# SECTION 2

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## SCHEMATIC DIAGRAMS

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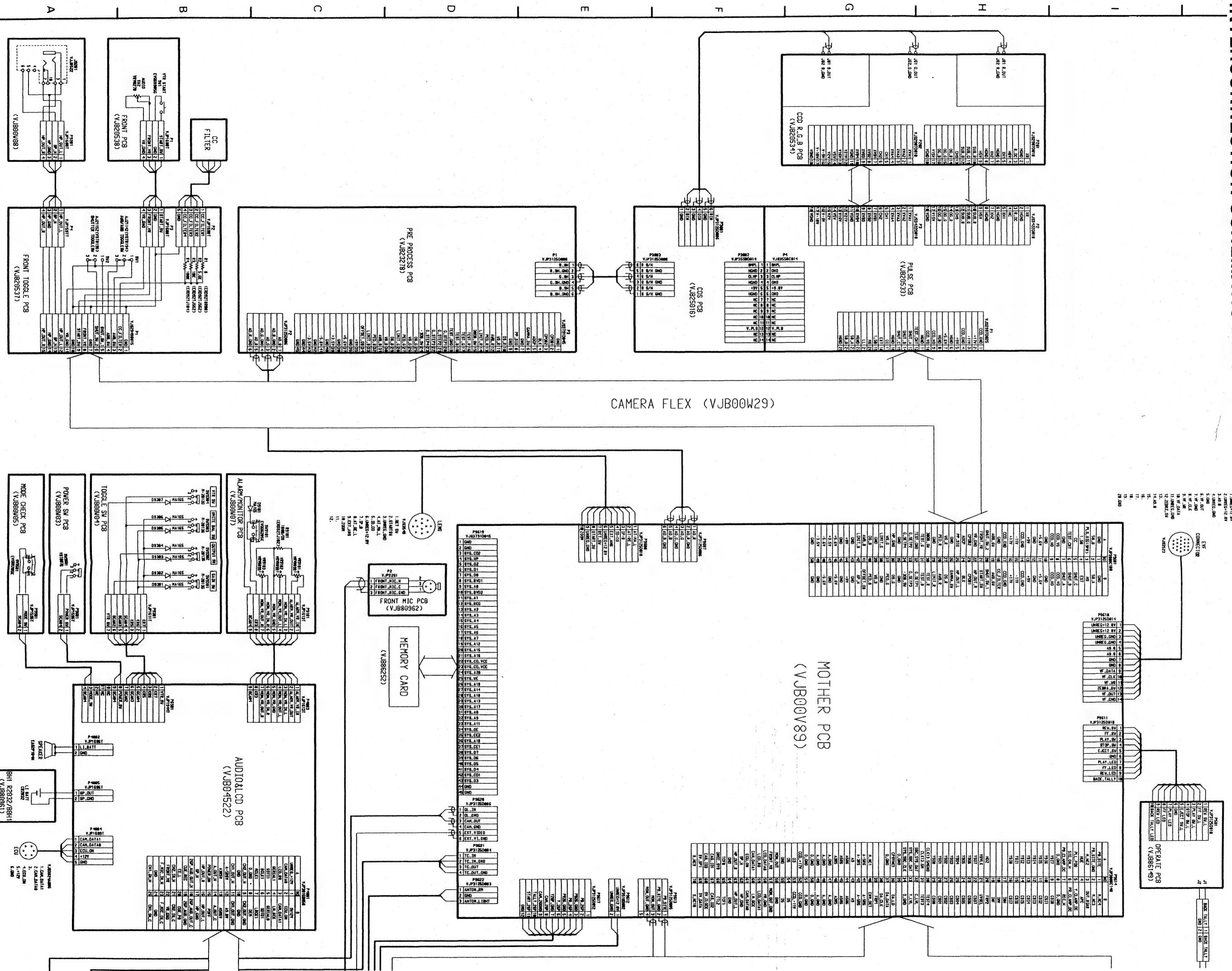
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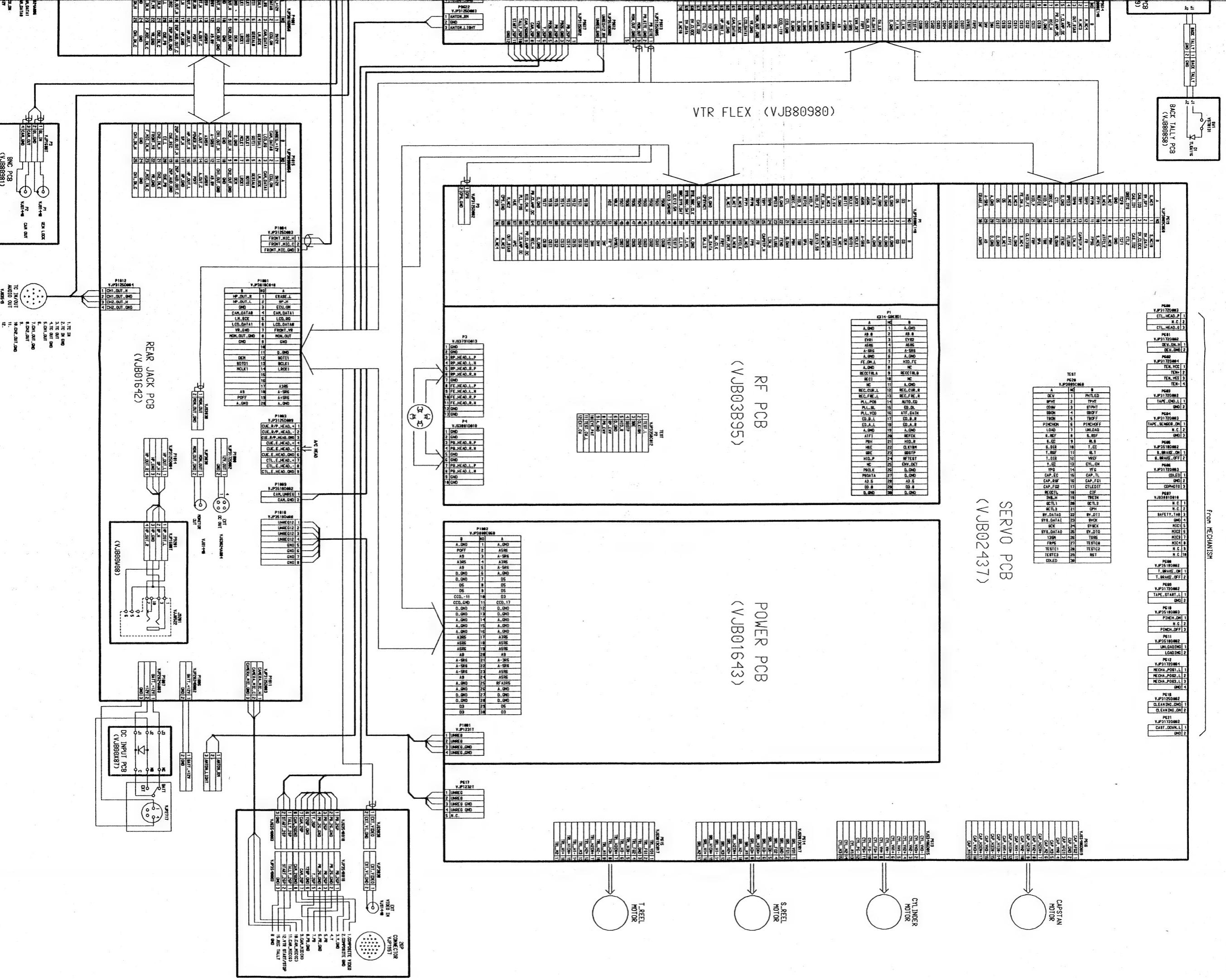
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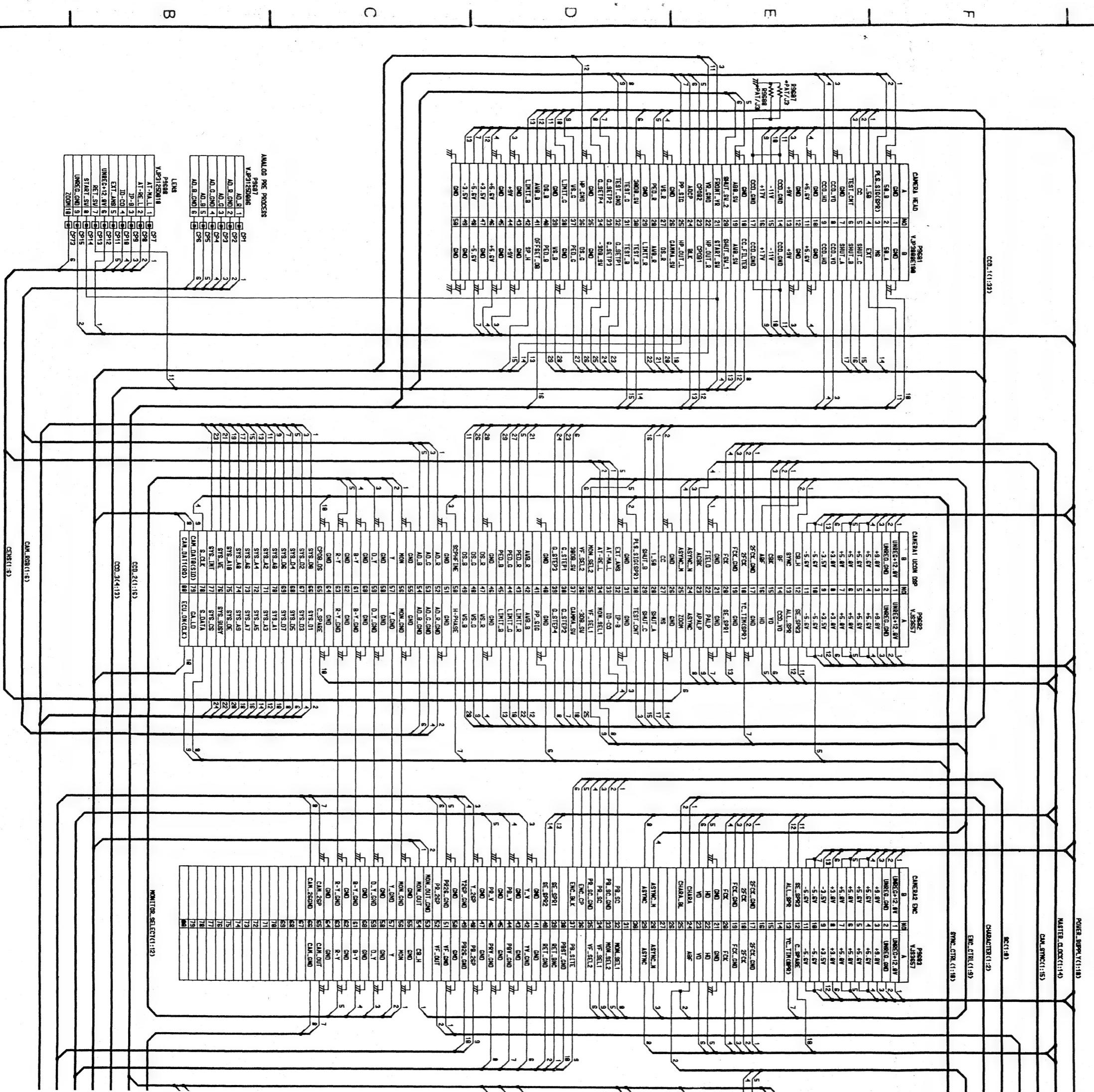
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## INTERCONNECTION SCHEMATIC DIAGRAM



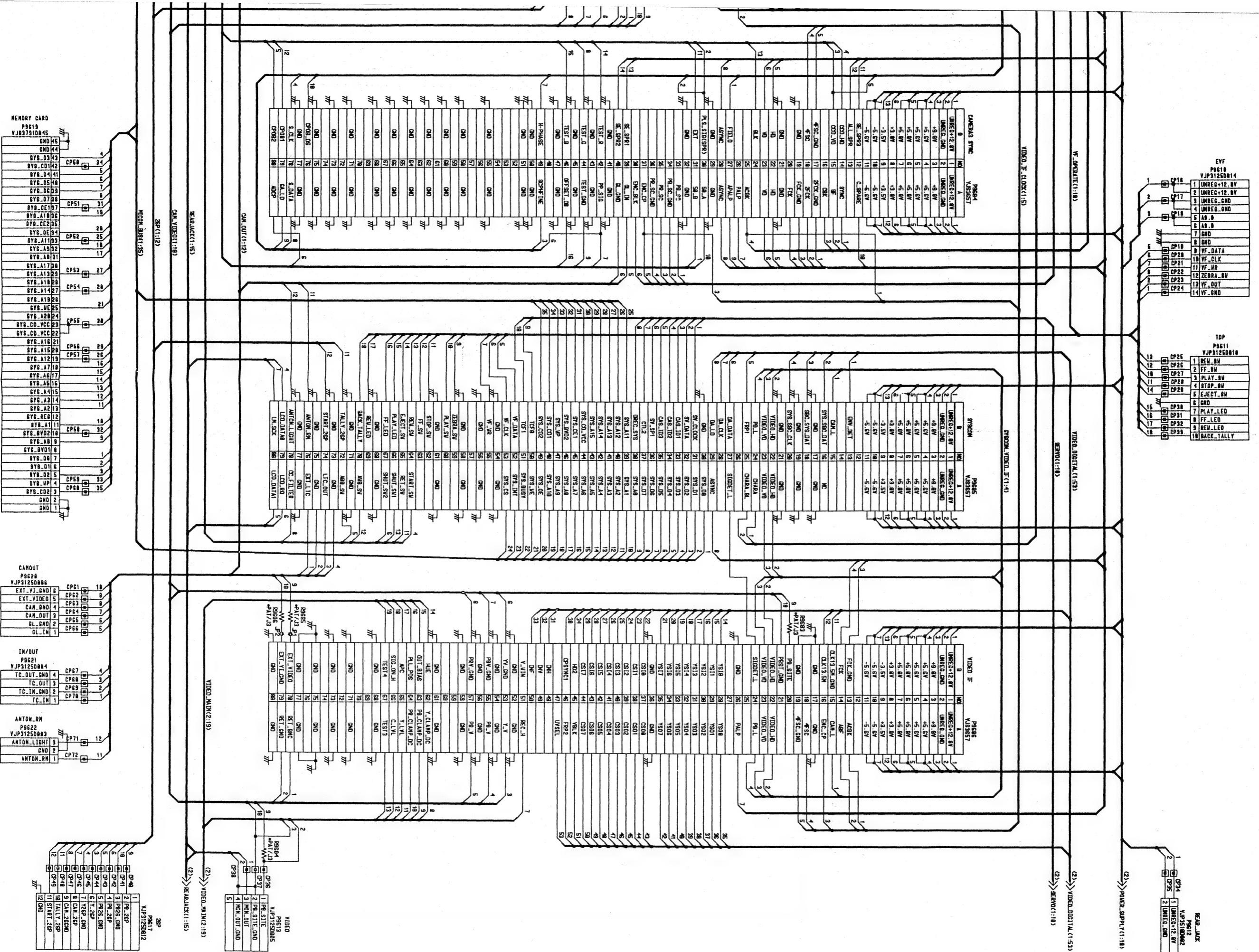


# MOTHER SCHEMATIC DIAGRAM

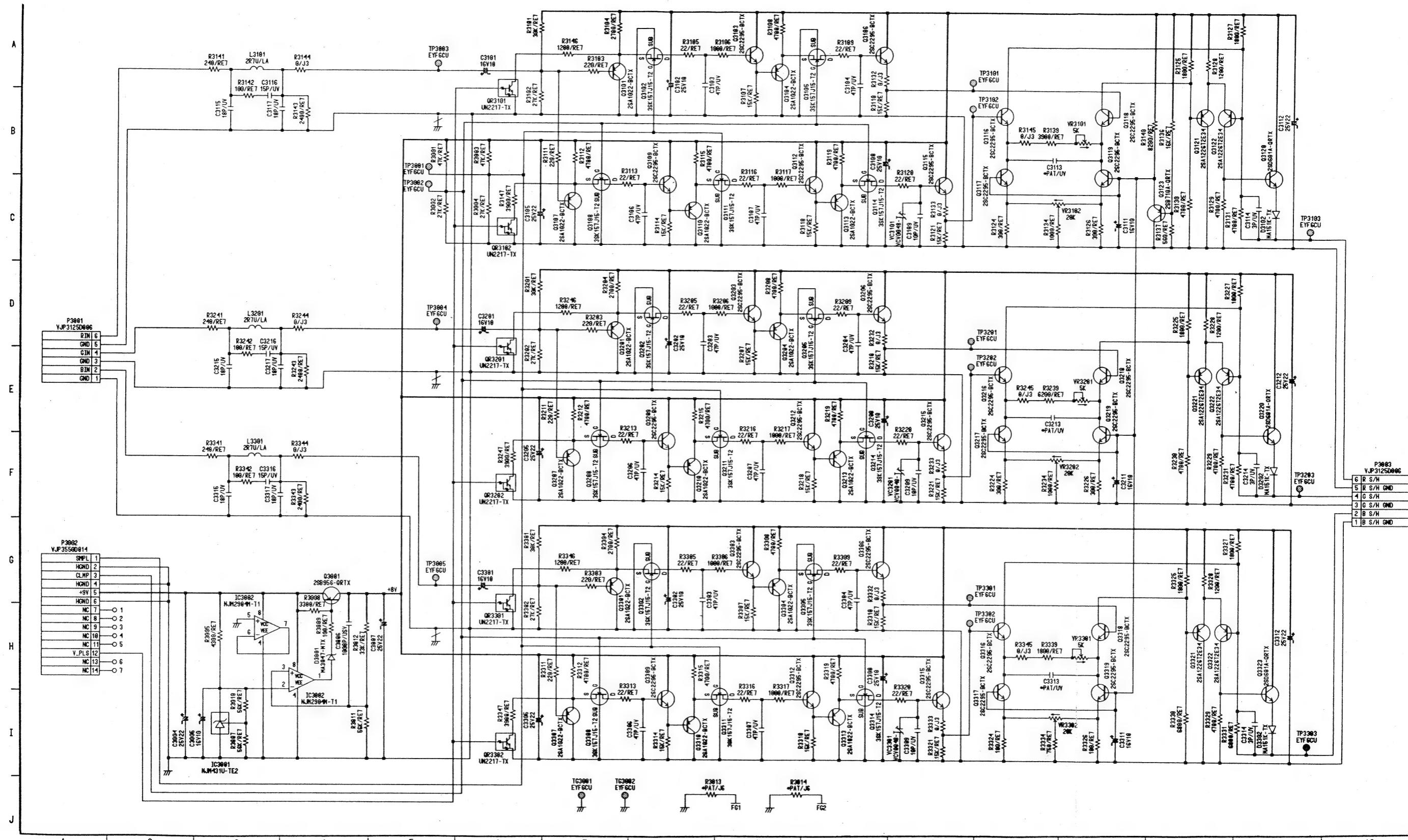


1  
2—2

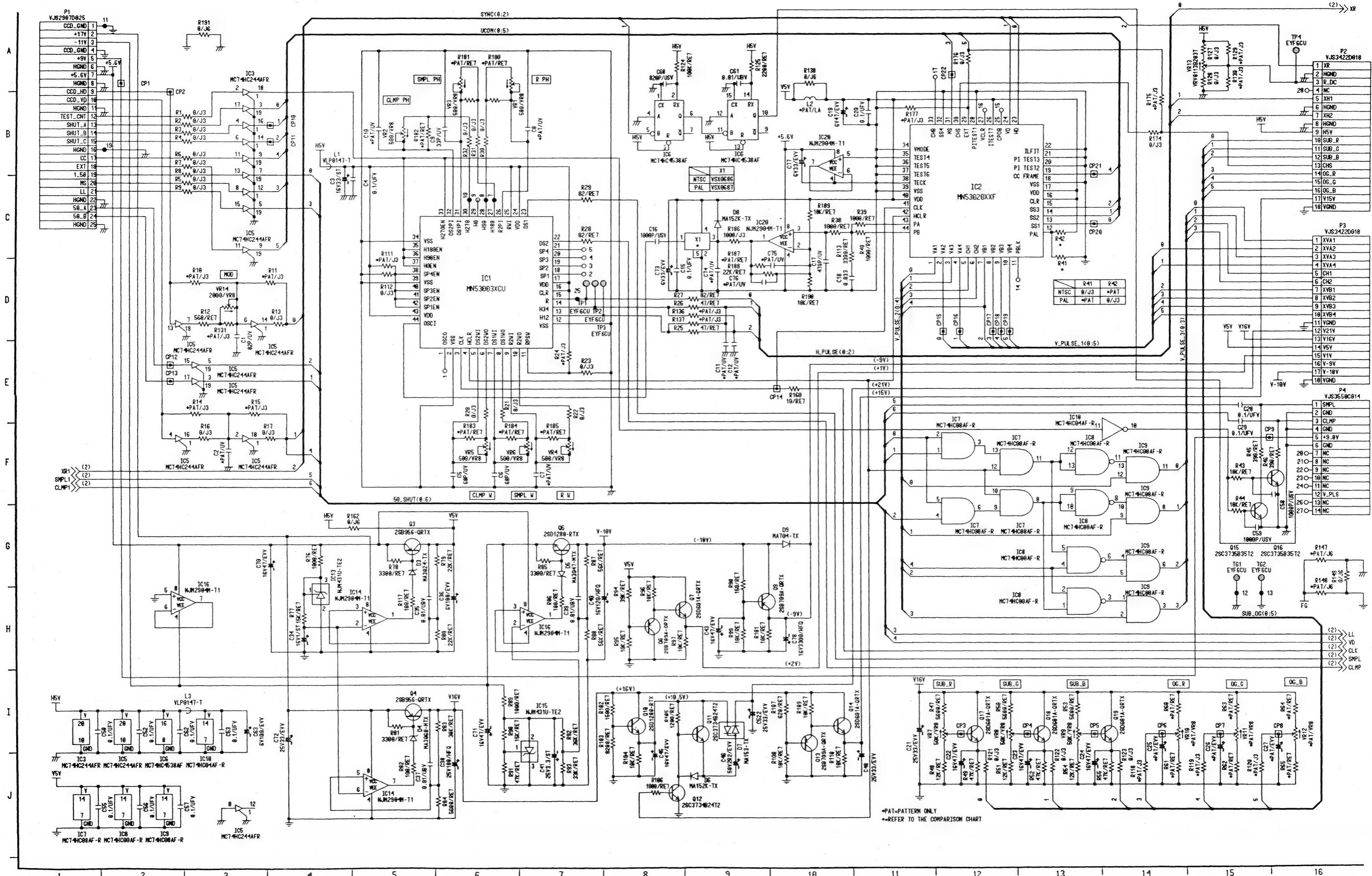
3  
4  
5



# CDS SCHEMATIC DIAGRAM

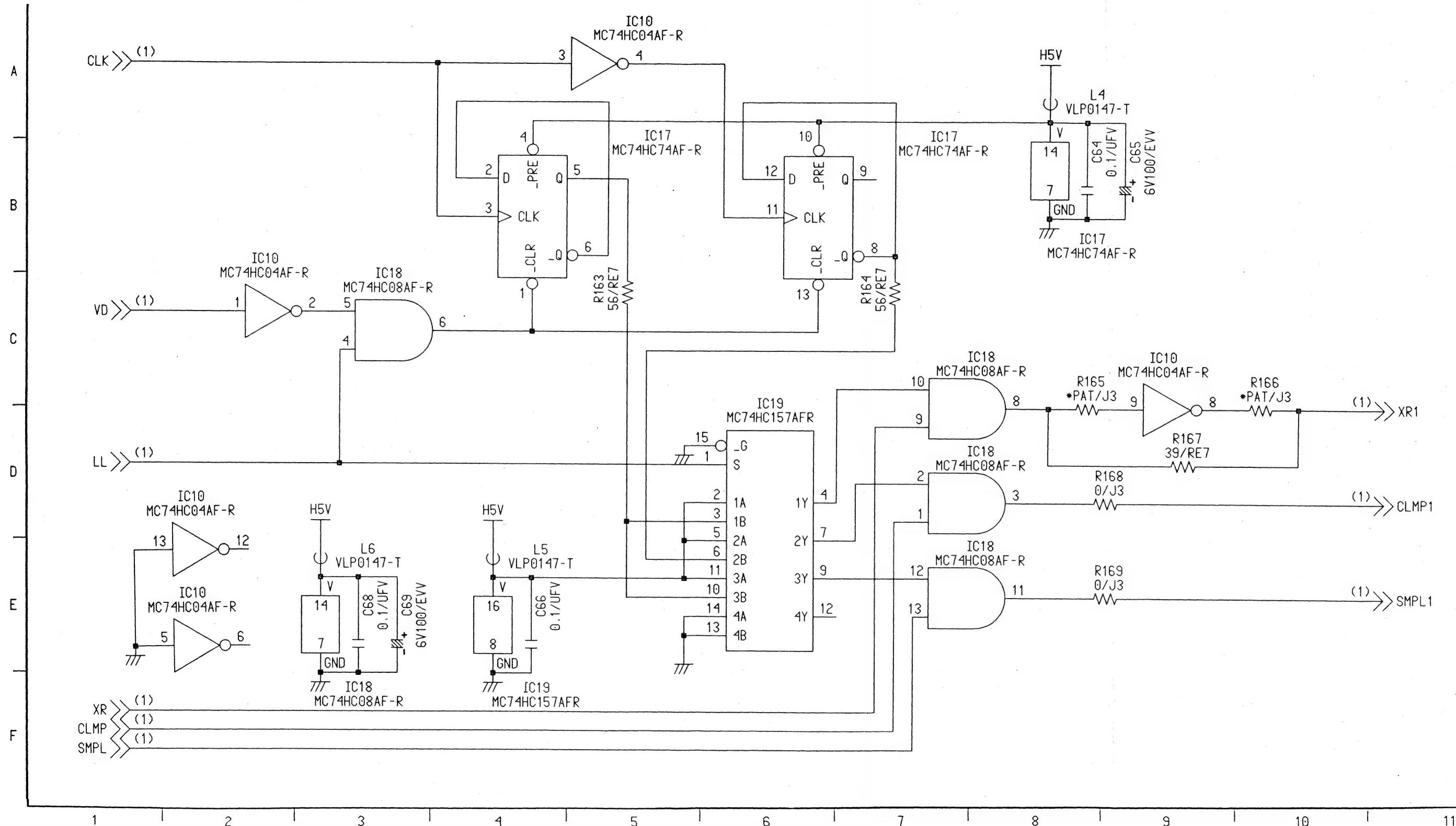


## PULSE (1/4) SCHEMATIC DIAGRAM



•PAT= PATTERN ONLY  
•REFER TO THE COMPARISON CHART

## PULSE (2/4) SCHEMATIC DIAGRAM



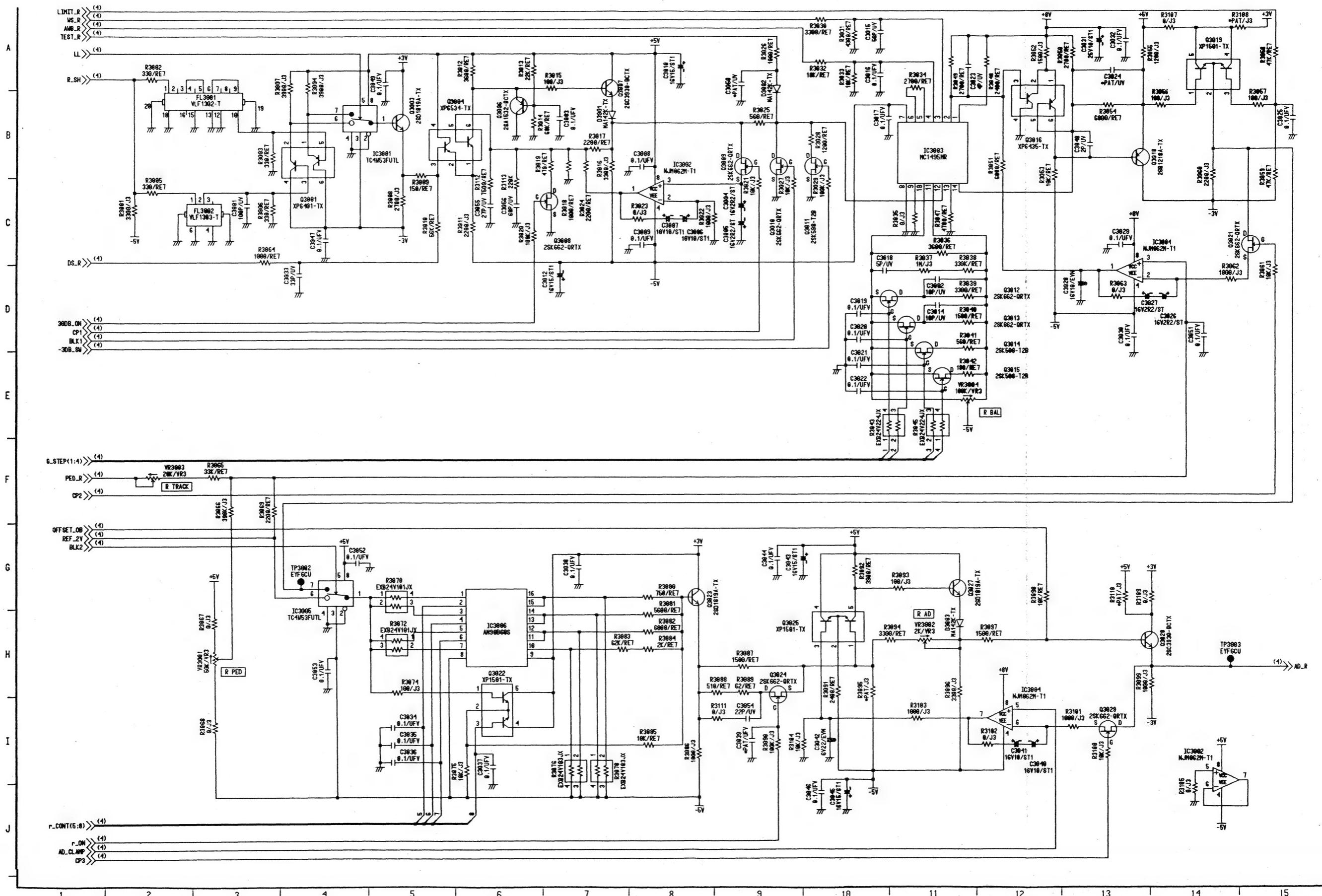
**PULSE (3/4) COMPARISON CHART 1 BETWEEN MODELS**

| \$REF\$ | NTSC     | PAL      | ON        |
|---------|----------|----------|-----------|
| C10     | *PAT/UV  | *PAT/UV  | 56P/UV    |
| C11     | *PAT/UV  | *PAT/UV  | 56P/UV    |
| C12     | *PAT/UV  | *PAT/UV  | 56P/UV    |
| C2      | *PAT/UV  | *PAT/UV  | 56P/UV    |
| C25     | *PAT/EVV | *PAT/EVV | 16V10/EVV |
| C26     | *PAT/EVV | *PAT/EVV | 16V10/EVV |
| C27     | *PAT/EVV | *PAT/EVV | 16V10/EVV |
| C7      | *PAT/UV  | *PAT/UV  | 33P/UV    |
| C74     | *PAT/UV  | *PAT/UV  | 33P/UV    |
| C75     | *PAT/UV  | *PAT/UV  | 33P/UV    |
| C76     | *PAT/UV  | *PAT/UV  | 33P/UV    |
| C8      | *PAT/UV  | *PAT/UV  | 33P/UV    |
| L2      | *PAT/LA  | *PAT/LA  | 33U/LA    |
| R10     | *PAT/J3  | *PAT/J3  | 0/J3      |
| R11     | *PAT/J3  | *PAT/J3  | 0/J3      |
| R111    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R118    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R119    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R120    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R129    | *PAT/RE7 | *PAT/RE7 | 22K/RE7   |
| R130    | *PAT/RE7 | *PAT/RE7 | 22K/RE7   |
| R131    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R136    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R137    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R14     | *PAT/J3  | *PAT/J3  | 0/J3      |
| R147    | *PAT/J6  | *PAT/J6  | 0/J6      |
| R148    | *PAT/J6  | *PAT/J6  | 0/J6      |
| R15     | *PAT/J3  | *PAT/J3  | 0/J3      |
| R165    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R166    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R175    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R177    | *PAT/J3  | *PAT/J3  | 0/J3      |
| R180    | *PAT/RE7 | *PAT/RE7 | 510/RE7   |
| R181    | *PAT/RE7 | *PAT/RE7 | 270/RE7   |
| R182    | *PAT/RE7 | *PAT/RE7 | 270/RE7   |
| R183    | *PAT/RE7 | *PAT/RE7 | 270/RE7   |
| R184    | *PAT/RE7 | *PAT/RE7 | 270/RE7   |
| R185    | *PAT/RE7 | *PAT/RE7 | 510/RE7   |
| R187    | *PAT/RE7 | *PAT/RE7 | 22K/RE7   |
| R24     | *PAT/J3  | *PAT/J3  | 0/J3      |
| R41     | 0/J3     | *PAT/J3  | 0/J3      |
| R42     | *PAT/J3  | 0/J3     | 0/J3      |
| R60     | *PAT/RE7 | *PAT/RE7 | 15K/RE7   |

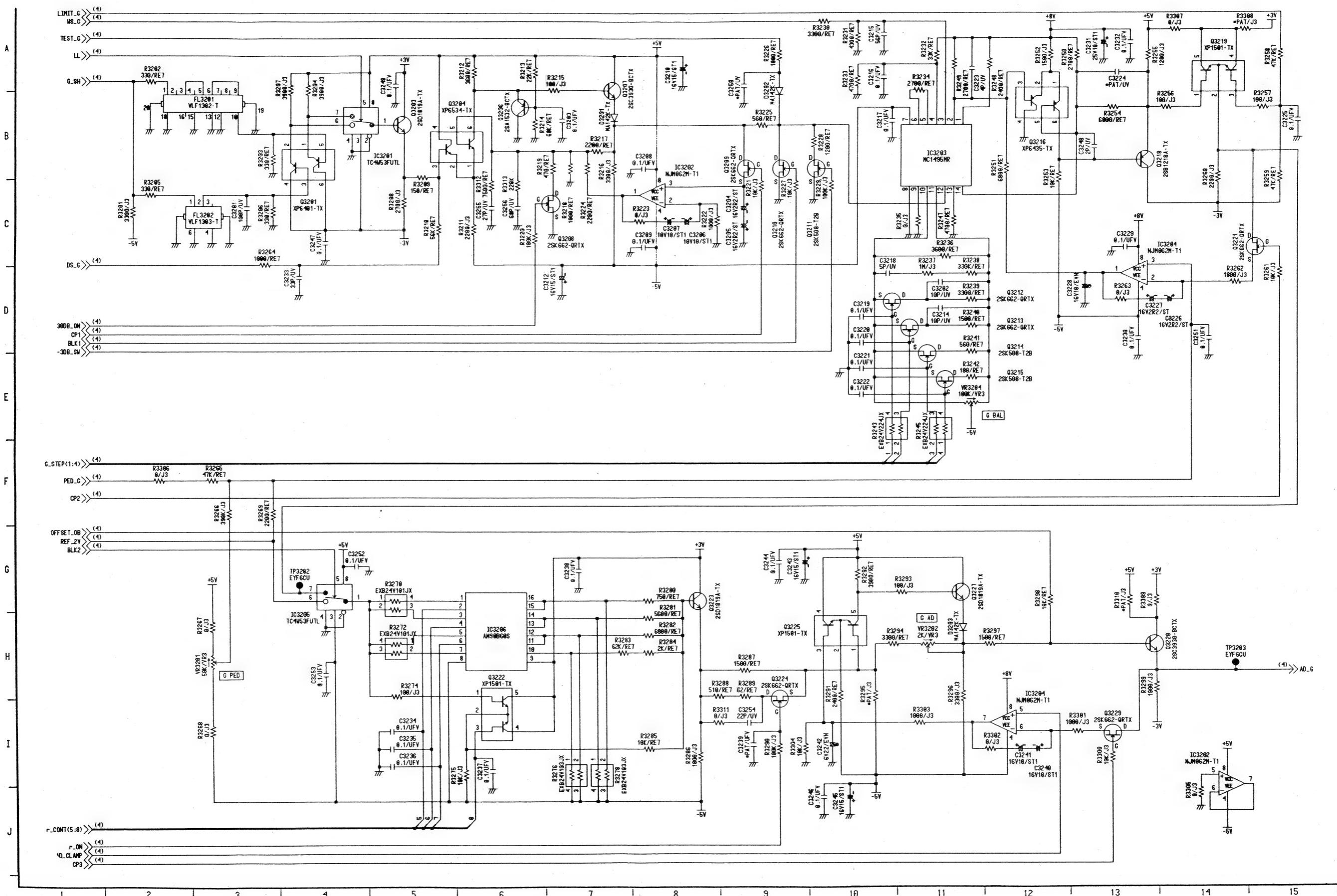
**PULSE (4/4) COMPARISON CHART 2 BETWEEN MODELS**

| \$REF\$ | NTSC     | PAL      | ON       |
|---------|----------|----------|----------|
| R61     | *PAT/RE7 | *PAT/RE7 | 3300/RE7 |
| R62     | *PAT/RE7 | *PAT/RE7 | 3300/RE7 |
| R63     | *PAT/RE7 | *PAT/RE7 | 15K/RE7  |
| R64     | *PAT/RE7 | *PAT/RE7 | 15K/RE7  |
| R65     | *PAT/RE7 | *PAT/RE7 | 3300/RE7 |
| VR10    | *PAT/VR8 | *PAT/VR8 | 20K/VR8  |
| VR11    | *PAT/VR8 | *PAT/VR8 | 20K/VR8  |
| VR12    | *PAT/VR8 | *PAT/VR8 | 20K/VR8  |
| X1      | VSX0686  | VSX0687  | VSX0686  |

## **PRE PROCESS (1/4) SCHEMATIC DIAGRAM**

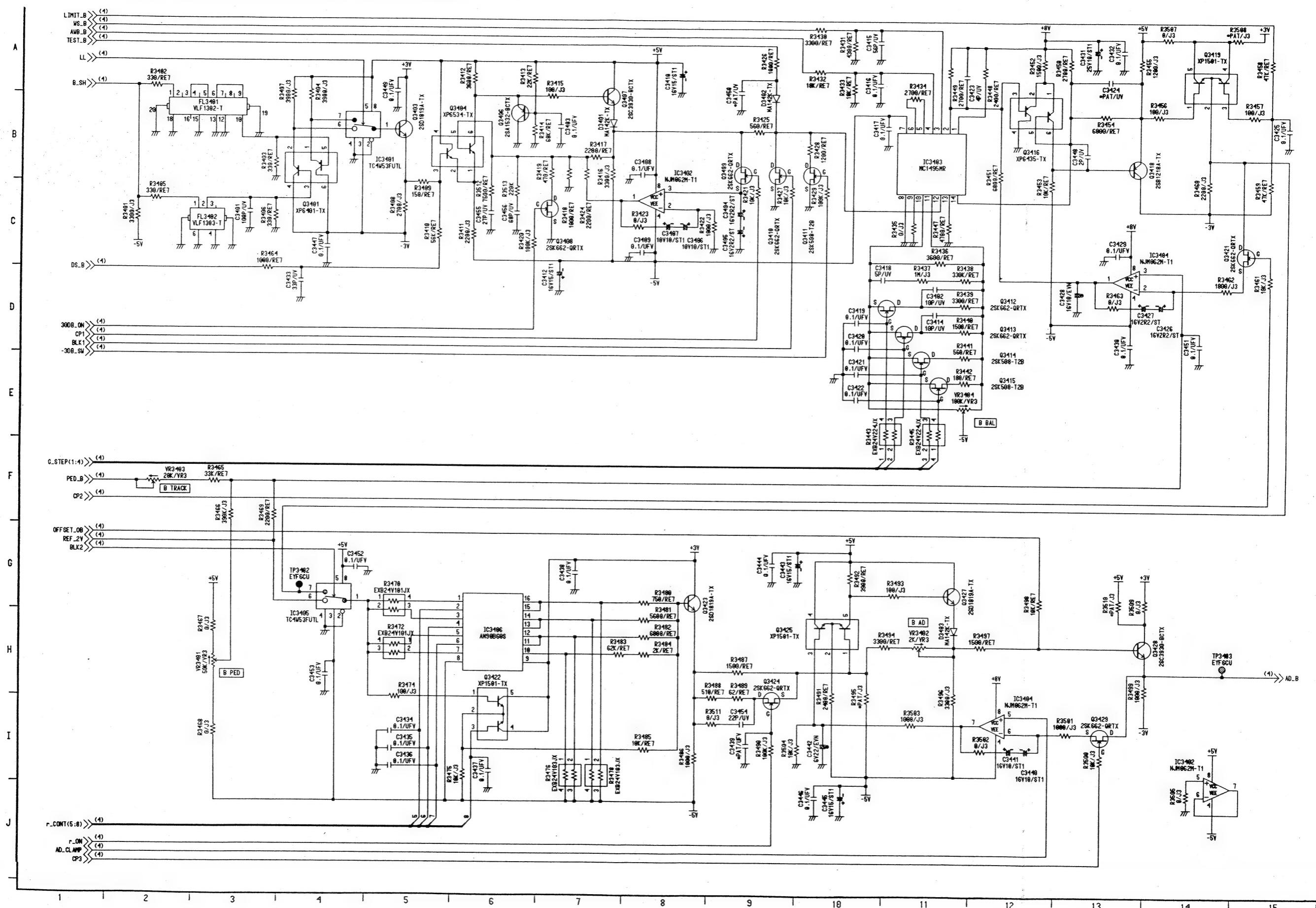


## PRE PROCESS (2/4) SCHEMATIC DIAGRAM

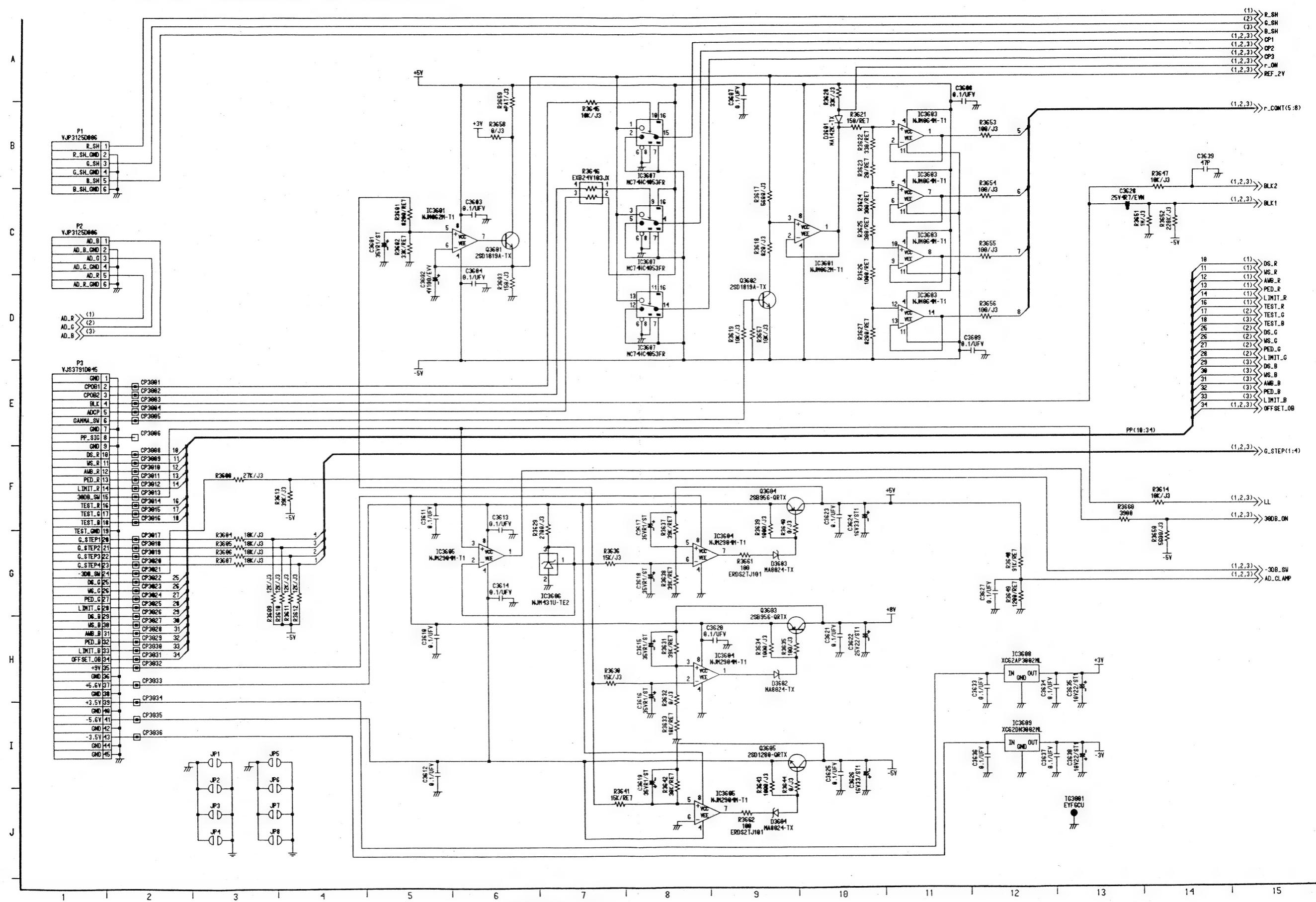


REVERSE SIDE

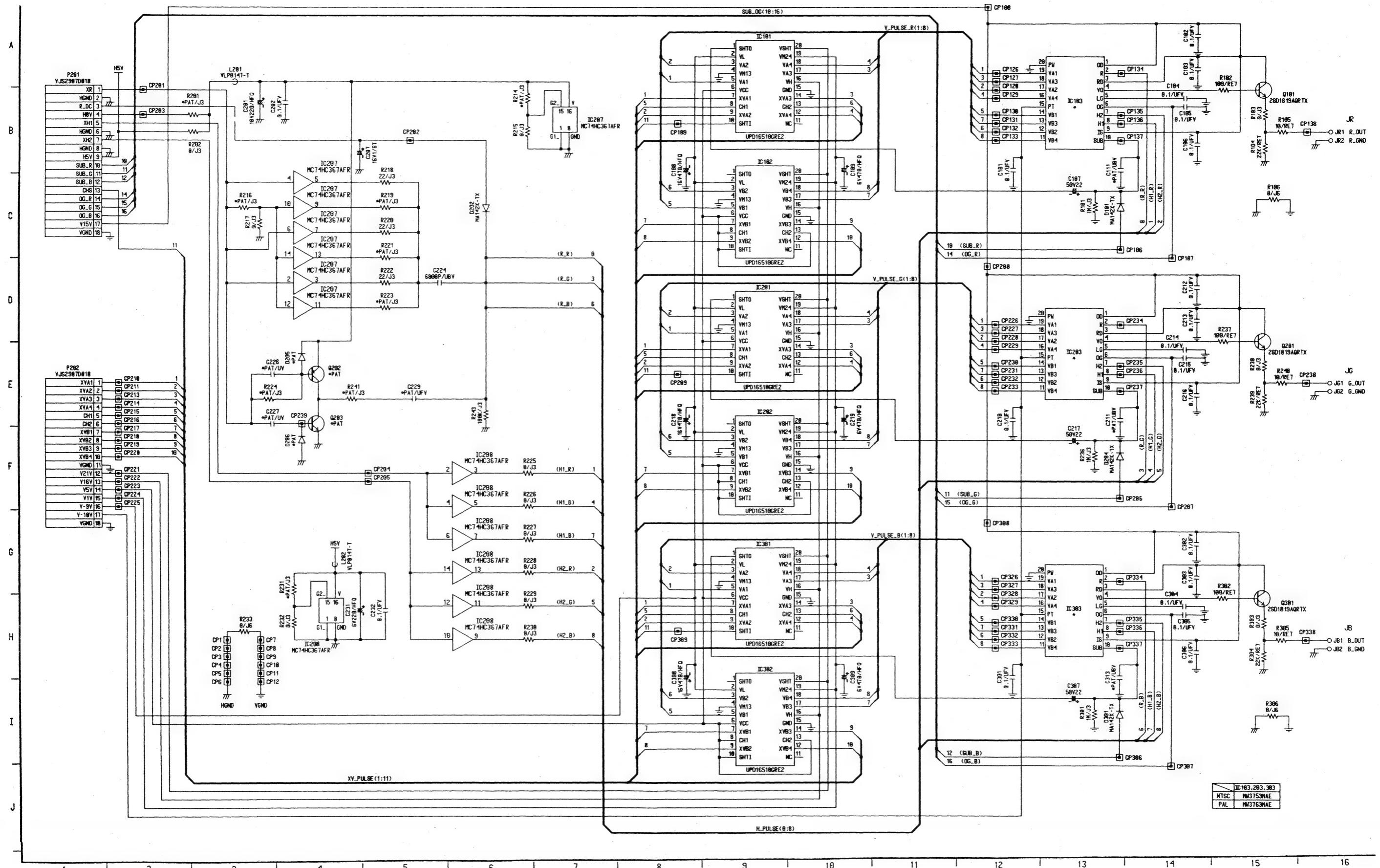
# PRE PROCESS (3/4) SCHEMATIC DIAGRAM



## PRE PROCESS (4/4) SCHEMATIC DIAGRAM



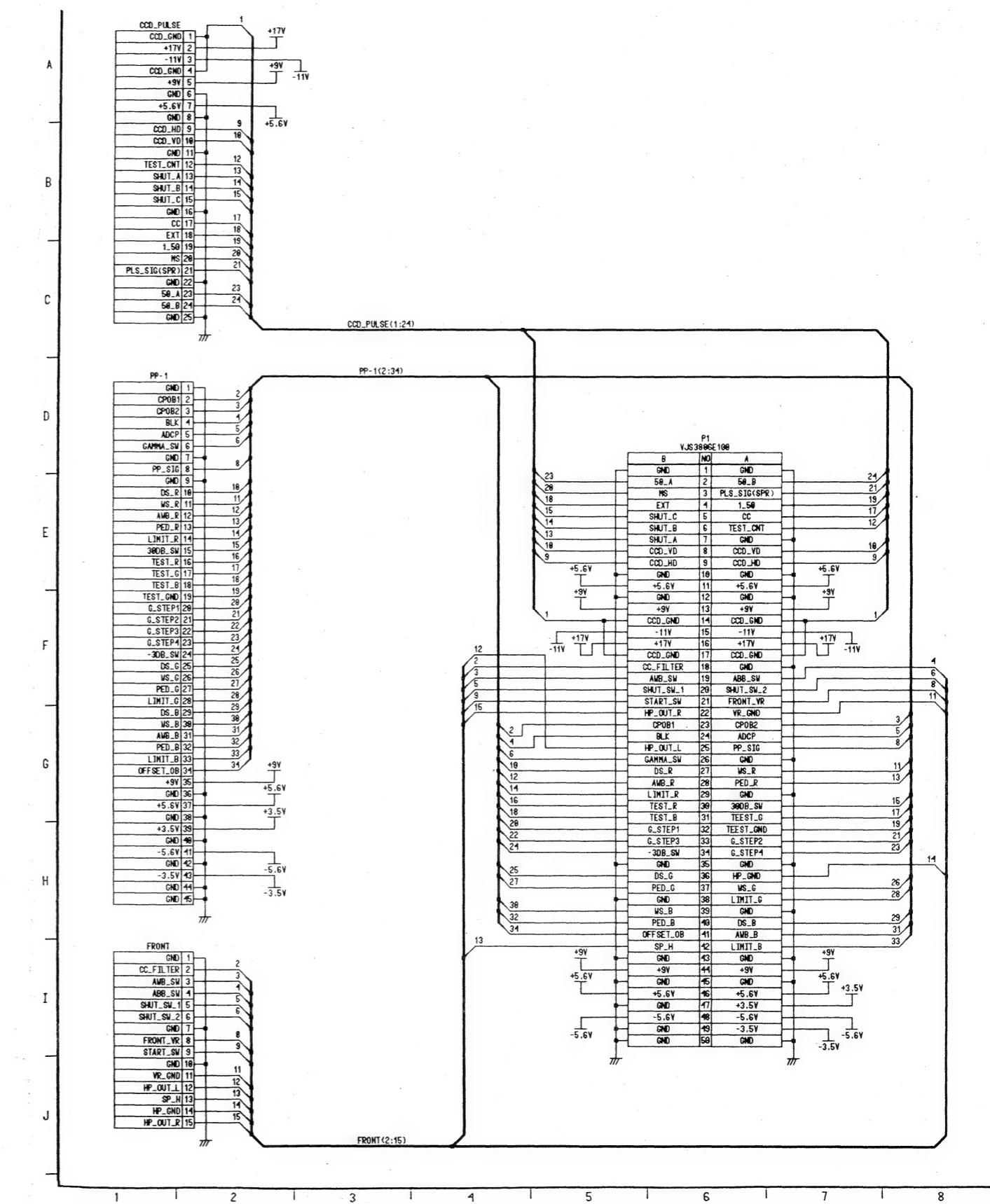
## **CCD (1/2) SCHEMATIC DIAGRAM**



## CCD (2/2) COMPARISON CHART BETWEEN MODELS

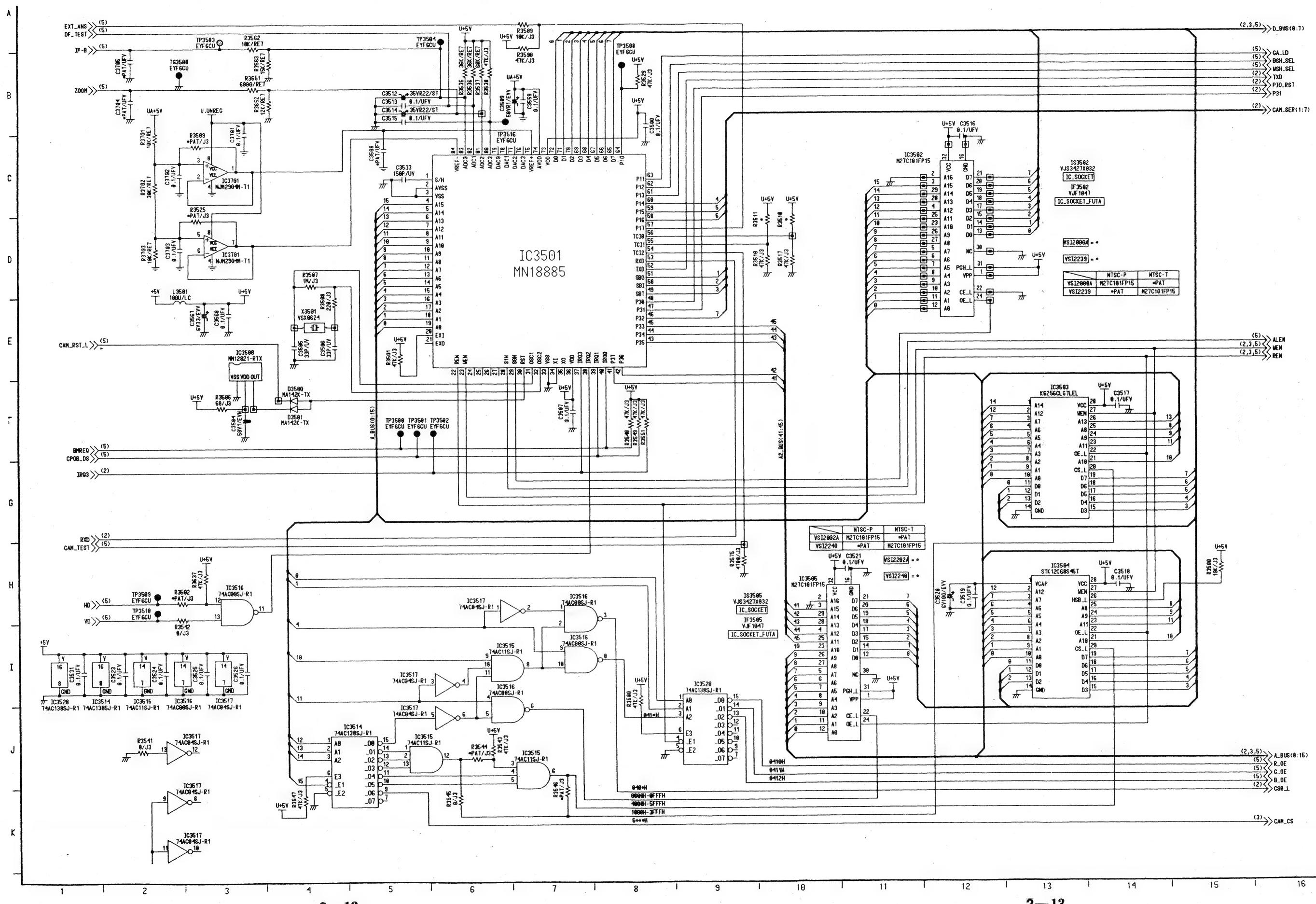
| \$REF\$ | NTSC      | PAL       | ON           |
|---------|-----------|-----------|--------------|
| C111    | *PAT/UBV  | *PAT/UBV  | 6800P/UBV    |
| C211    | *PAT/UBV  | *PAT/UBV  | 6800P/UBV    |
| C226    | *PAT/UV   | *PAT/UV   | 220P/UV      |
| C227    | *PAT/UV   | *PAT/UV   | 180P/UV      |
| C229    | *PAT/UFV  | *PAT/UFV  | 0. 1/UFV     |
| C313    | *PAT/UBV  | *PAT/UBV  | 6800P/UBV    |
| D205    | *PAT      | *PAT      | MA141K-TX    |
| D206    | *PAT      | *PAT      | MA141K-TX    |
| IC103   | MW3753MAE | MW3763MAE | MW3753MAE    |
| IC203   | MW3753MAE | MW3763MAE | MW3753MAE    |
| IC303   | MW3753MAE | MW3763MAE | MW3753MAE    |
| Q202    | *PAT      | *PAT      | 2SB1218AQRTX |
| Q203    | *PAT      | *PAT      | 2SD1819AQRTX |
| R201    | *PAT/J3   | *PAT/J3   | 0/J3         |
| R214    | *PAT/J3   | *PAT/J3   | 0/J3         |
| R216    | *PAT/J3   | *PAT/J3   | 0/J3         |
| R219    | *PAT/J3   | *PAT/J3   | 22/J3        |
| R221    | *PAT/J3   | *PAT/J3   | 22/J3        |
| R223    | *PAT/J3   | *PAT/J3   | 22/J3        |
| R224    | *PAT/J3   | *PAT/J3   | 1M/J3        |
| R231    | *PAT/J3   | *PAT/J3   | 0/J3         |
| R241    | *PAT/J3   | *PAT/J3   | 22/J3        |

## CAMERA FLEX SCHEMATIC DIAGRAM

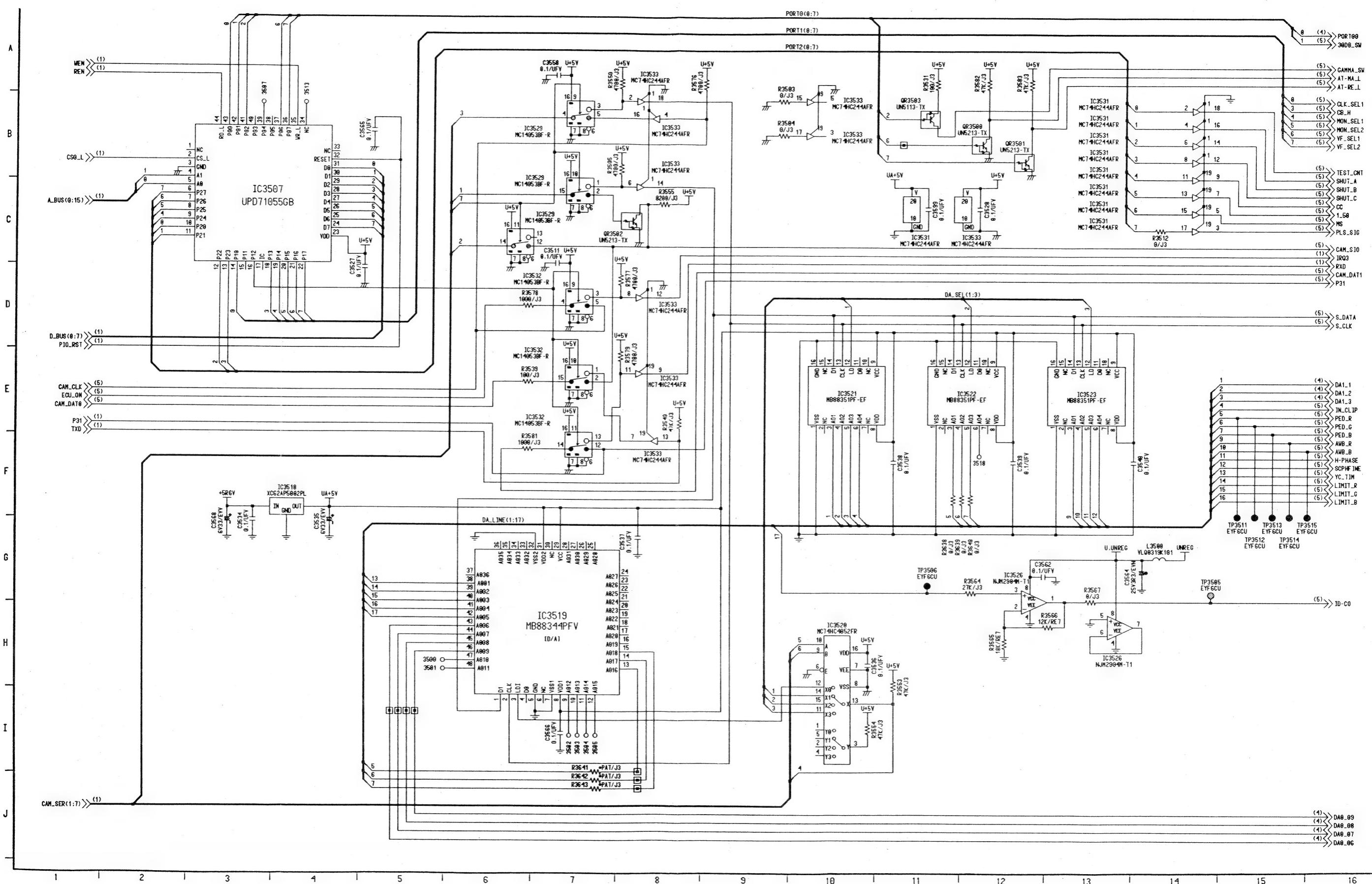


REVERSE SIDE

## **CAMERA SYSCON (1/5) SCHEMATIC DIAGRAM**

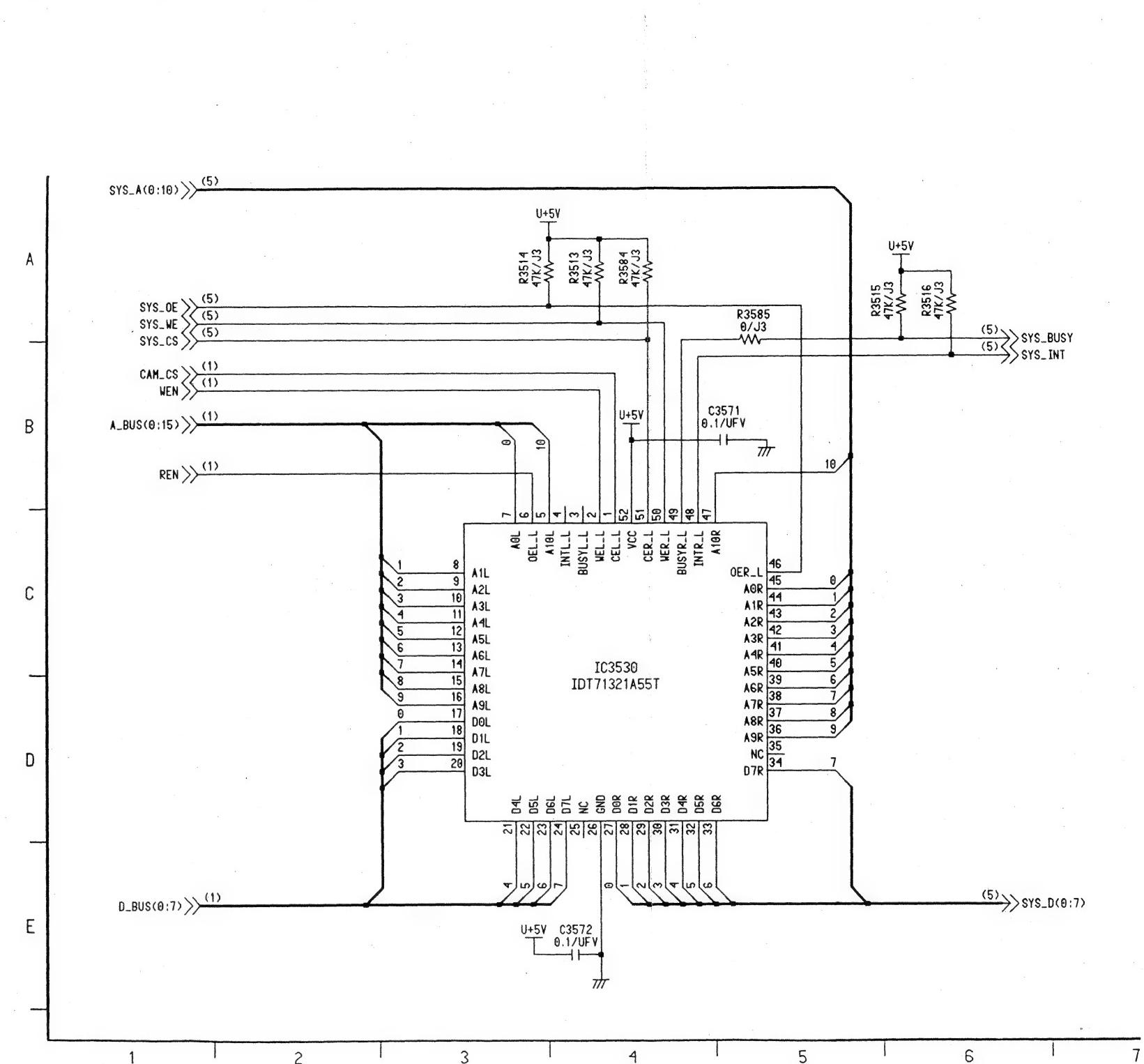


## **CAMERA SYSCON (2/5) SCHEMATIC DIAGRAM**

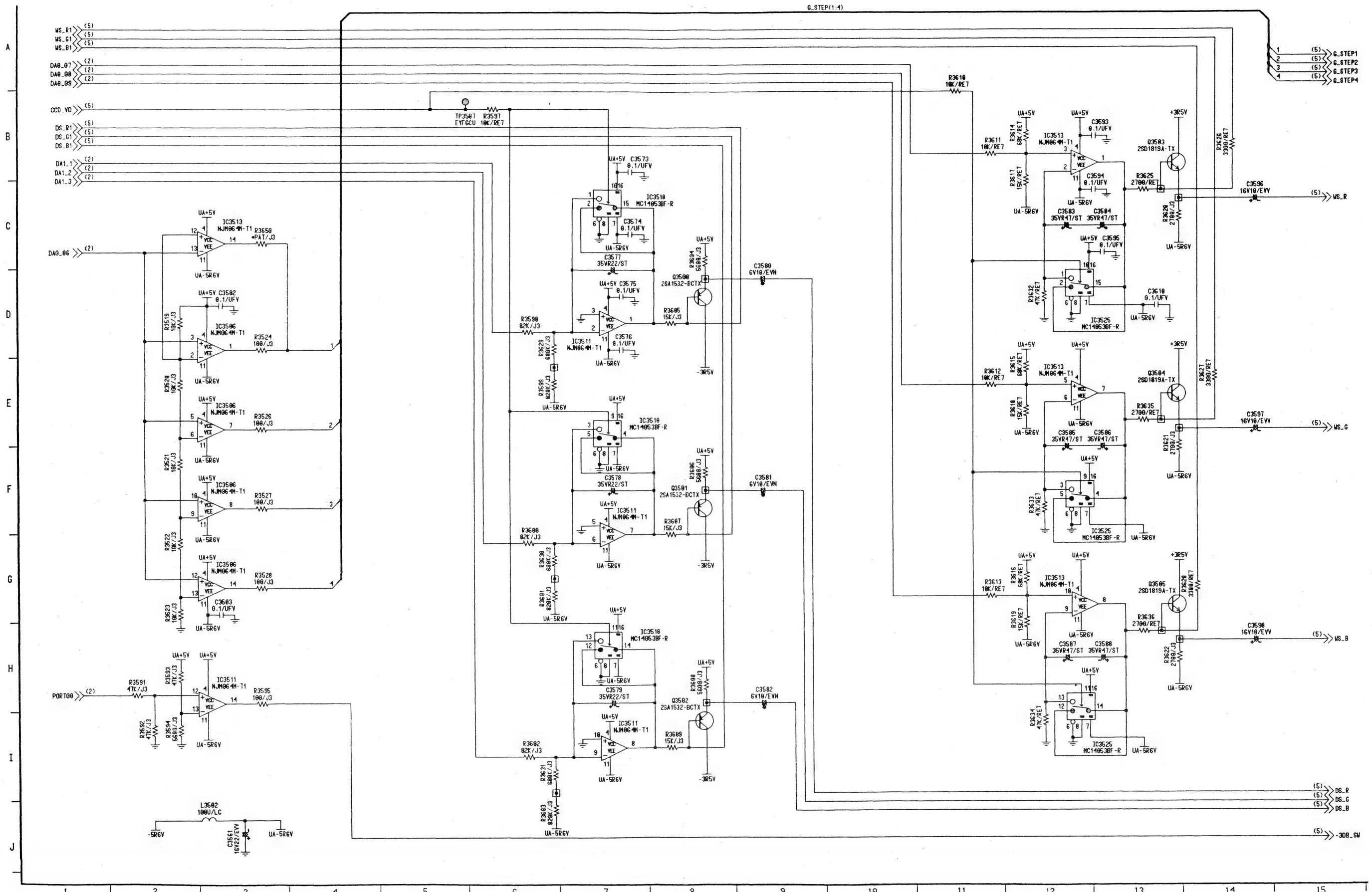


### CAMERA SYSCON (3/5) SCHEMATIC DIAGRAM

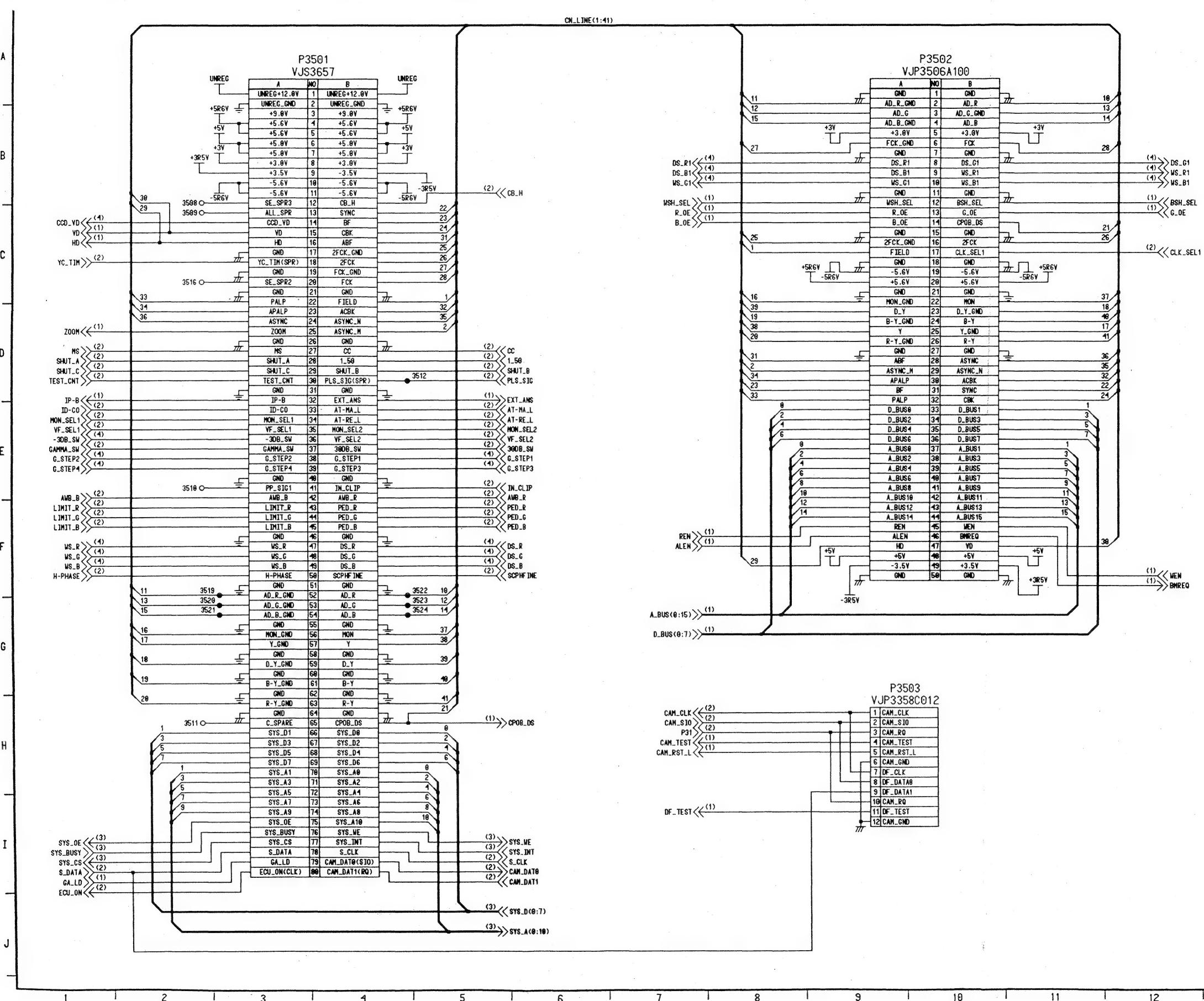
| \$REF\$ | VAL      | PAL      | NTSC-P   | NTSC-T   | ON      |
|---------|----------|----------|----------|----------|---------|
| C3508   | *PAT/UVF | *PAT/UVF | *PAT/UVF | *PAT/UVF | 0.1/UVF |
| C3704   | *PAT/UVF | *PAT/UVF | *PAT/UVF | *PAT/UVF | 0.1/UVF |
| C3705   | *PAT/UVF | *PAT/UVF | *PAT/UVF | *PAT/UVF | 0.1/UVF |
| R3502   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3509   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3511   | *PAT/J3  | 10K/J3   | *PAT/J3  | *PAT/J3  | 10K/J3  |
| R3518   | *PAT/J3  | *PAT/J3  | *PAT/J3  | 10K/J3   | 10K/J3  |
| R3525   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3544   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3546   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3641   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3642   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3643   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |
| R3650   | *PAT/J3  | *PAT/J3  | *PAT/J3  | *PAT/J3  | 0/J3    |



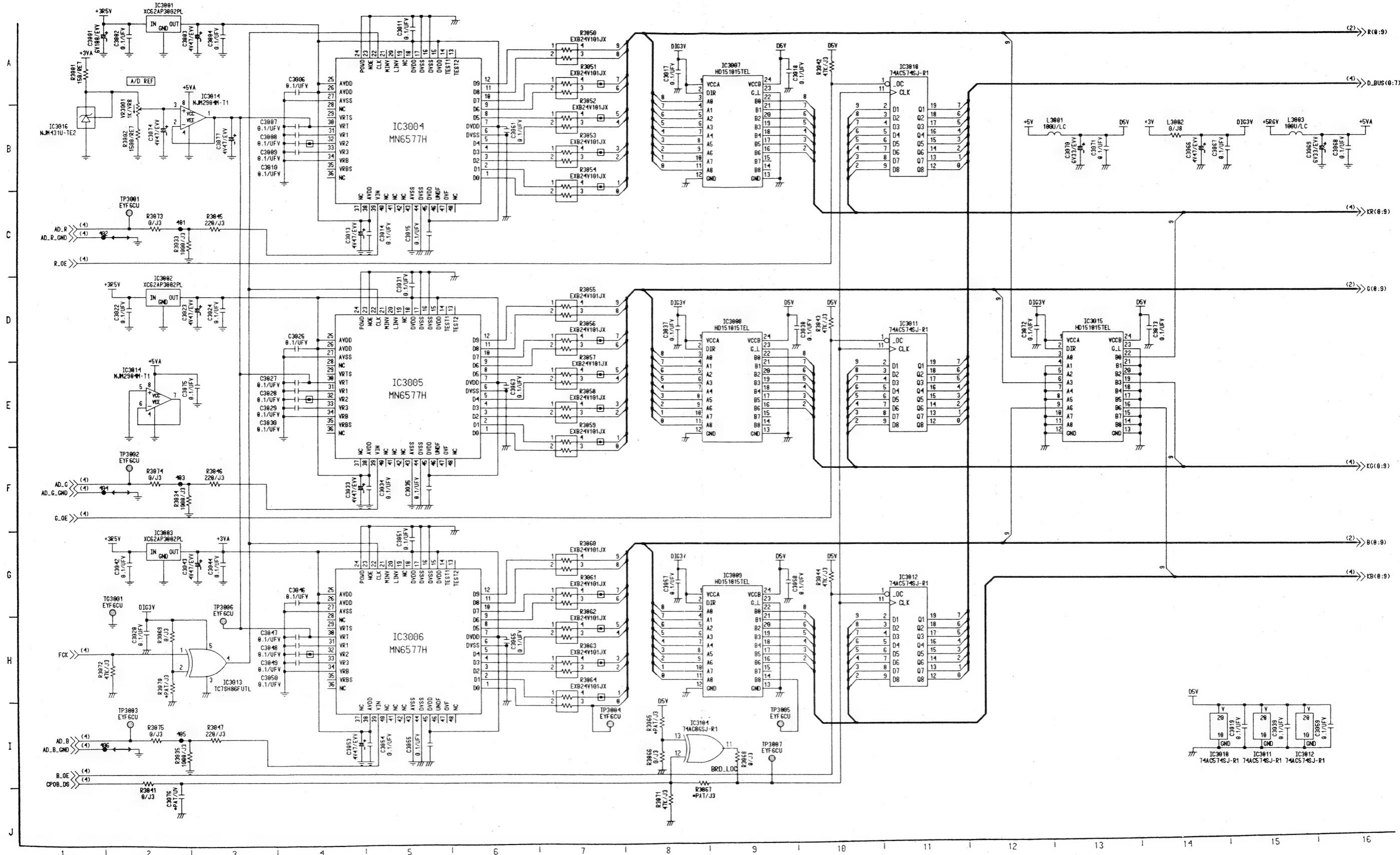
## **CAMERA SYSCON (4/5) SCHEMATIC DIAGRAM**



**CAMERA SYSCON (5/5) SCHEMATIC DIAGRAM**

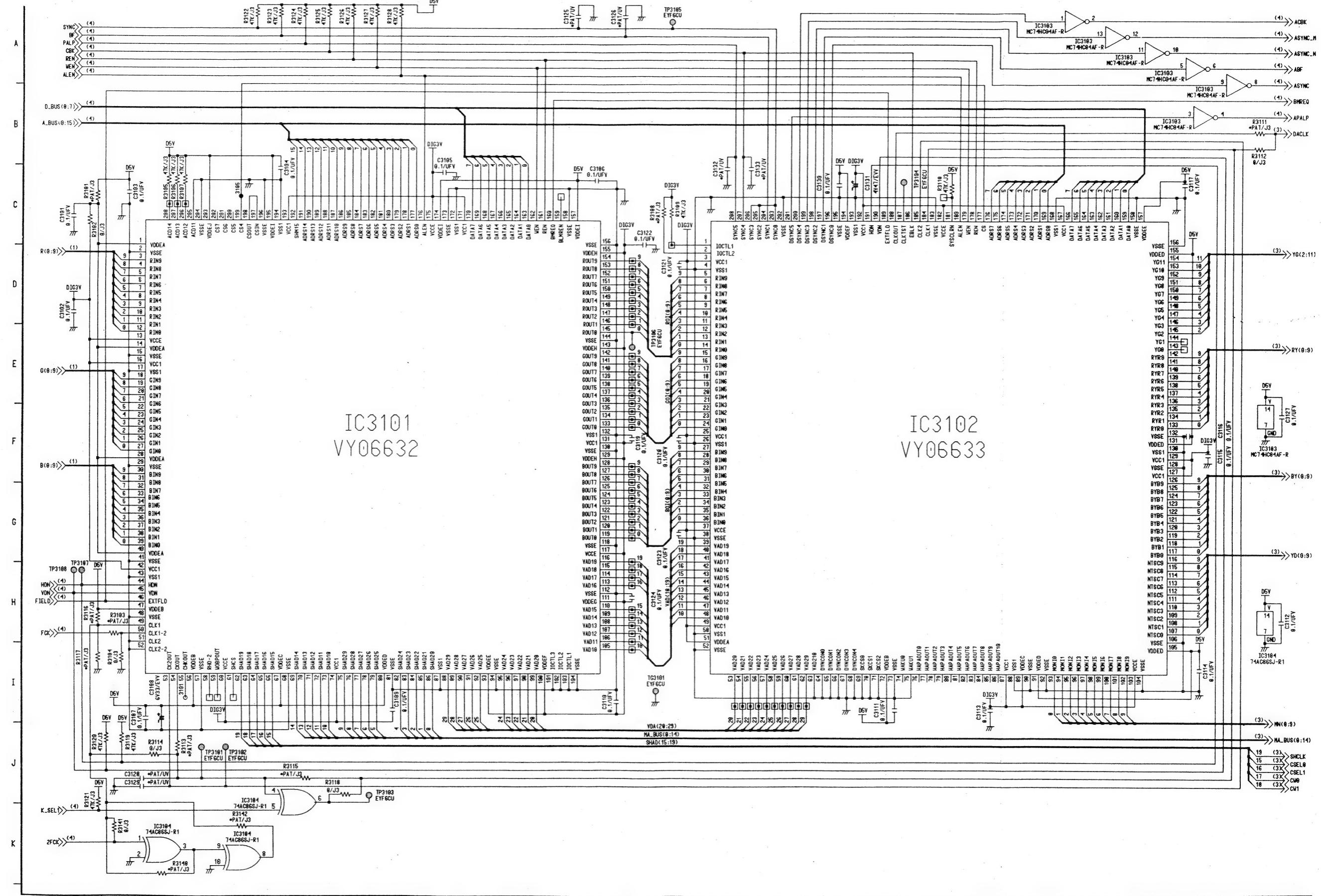


# CAMERA DSP (1/4) SCHEMATIC DIAGRAM

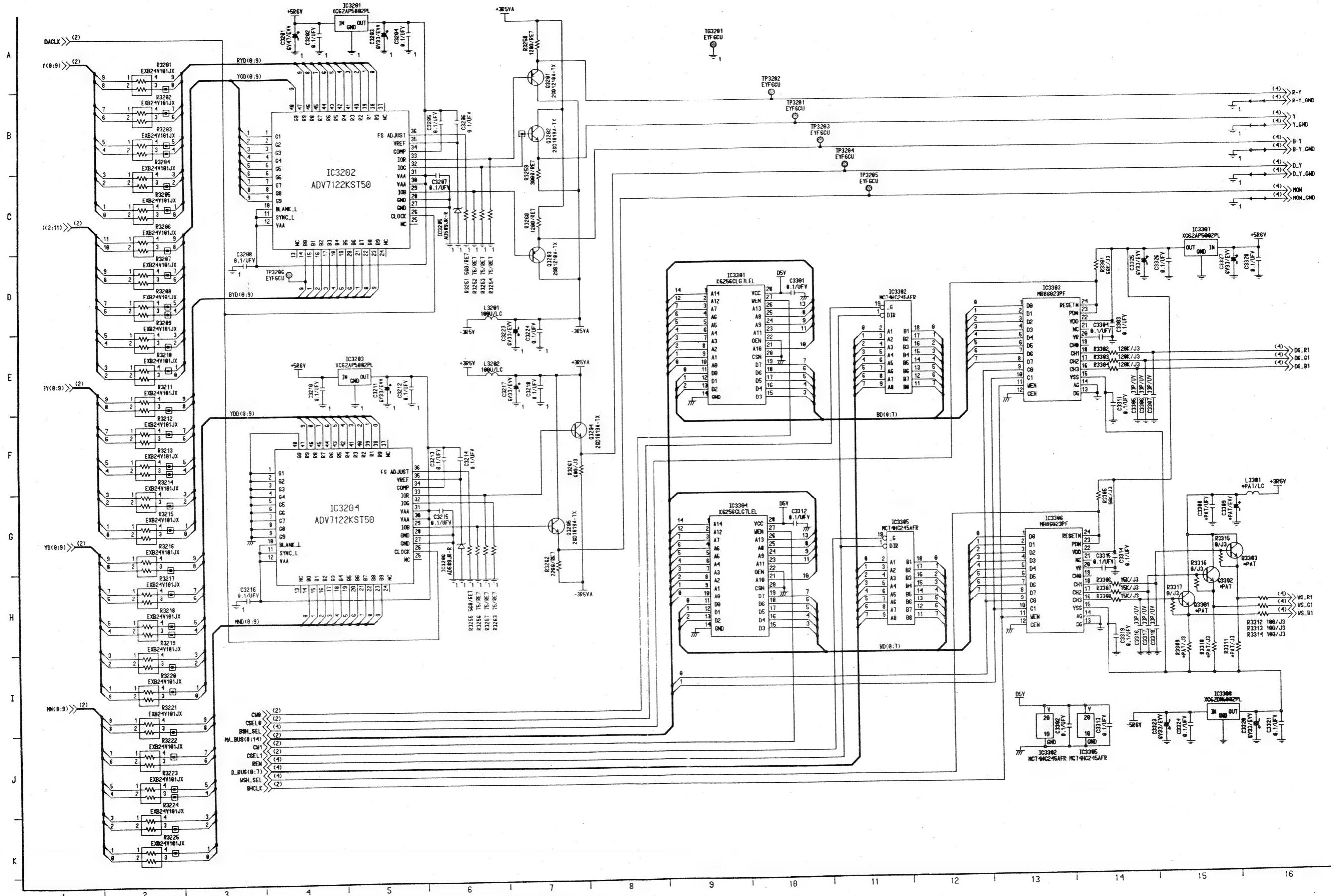


REVERSE SID

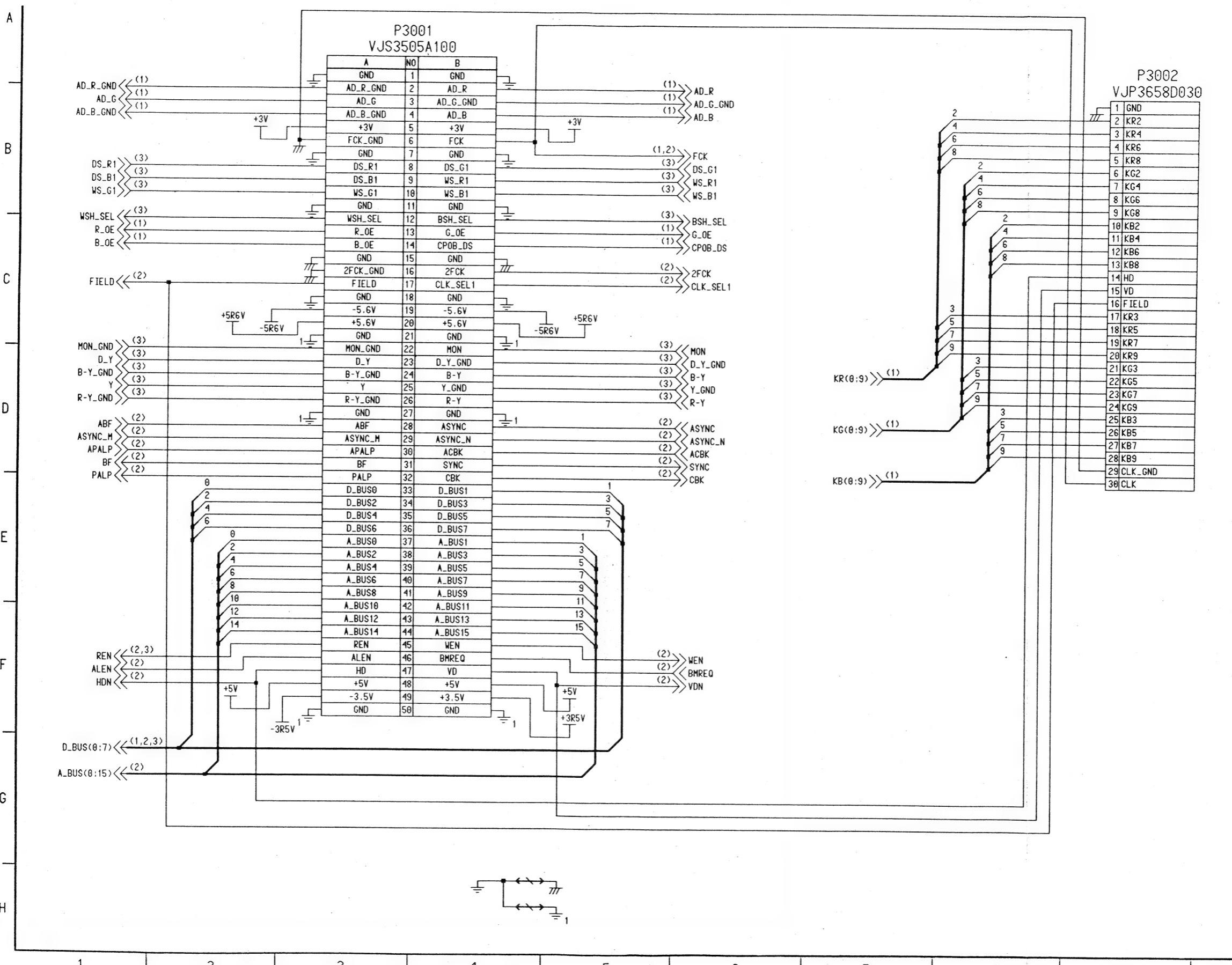
## CAMERA DSP (2/4) SCHEMATIC DIAGRAM



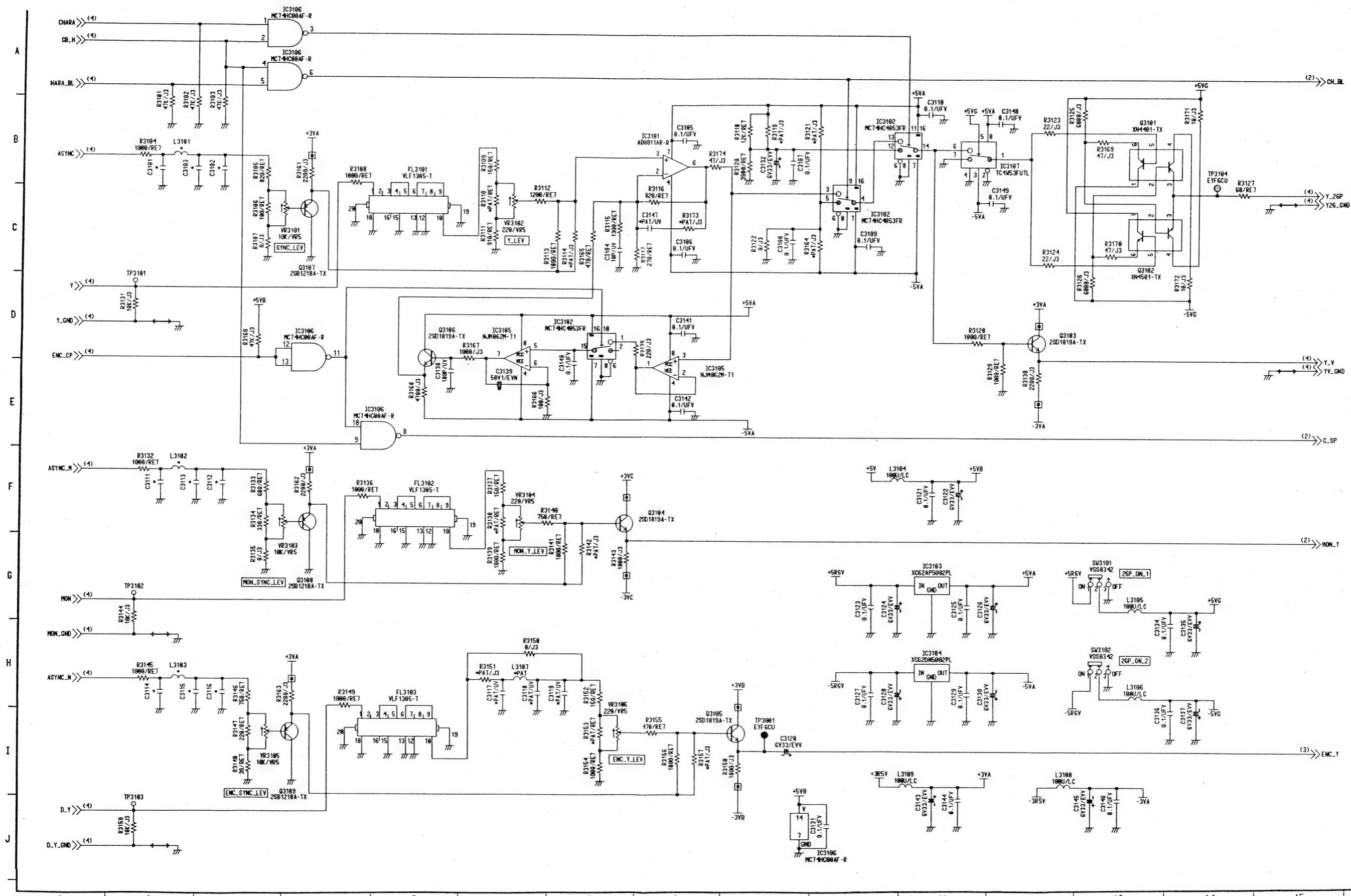
## CAMERA DSP (3/4) SCHEMATIC DIAGRAM



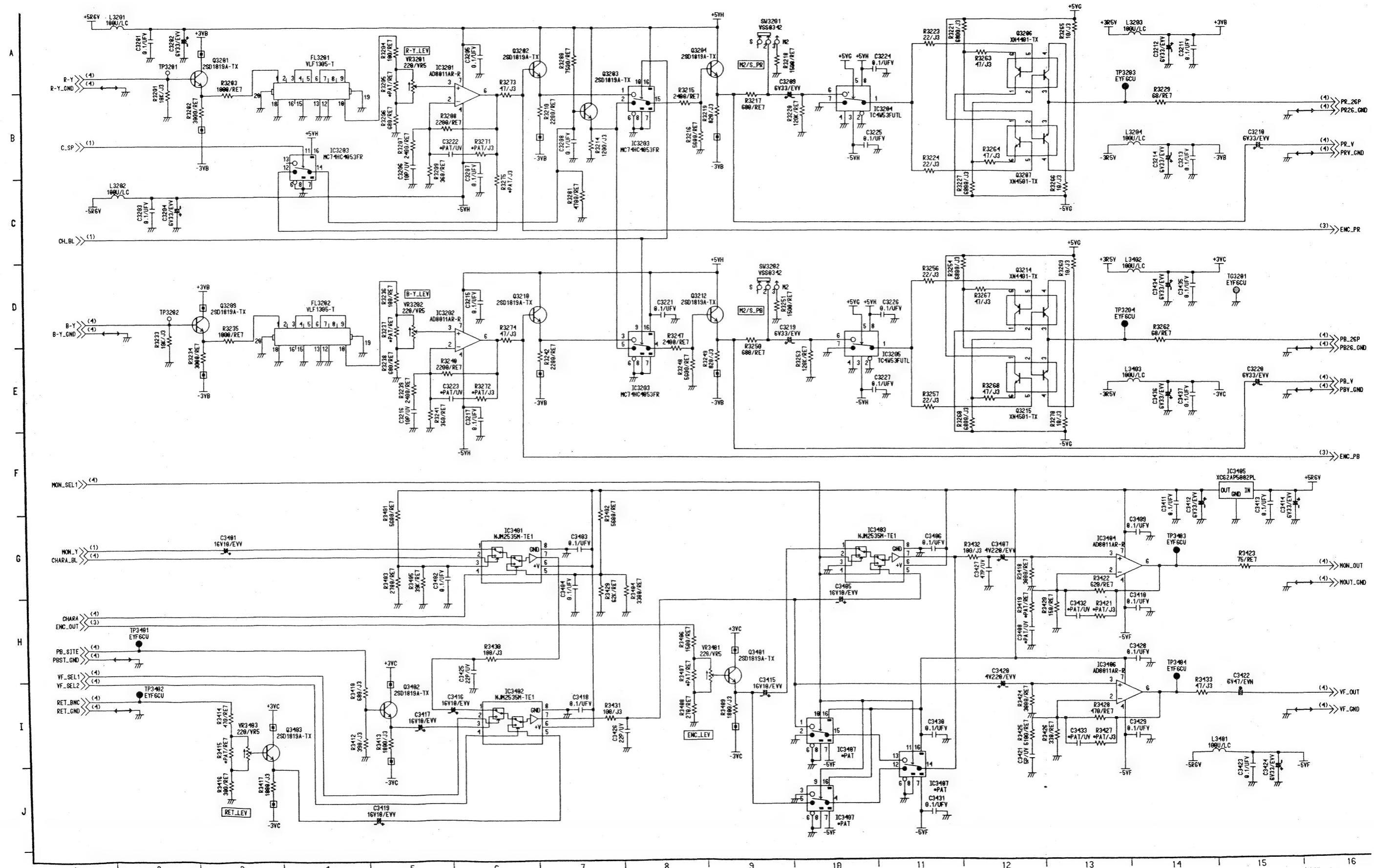
## CAMERA DSP (4/4) CONNECTOR SCHEMATIC DIAGRAM



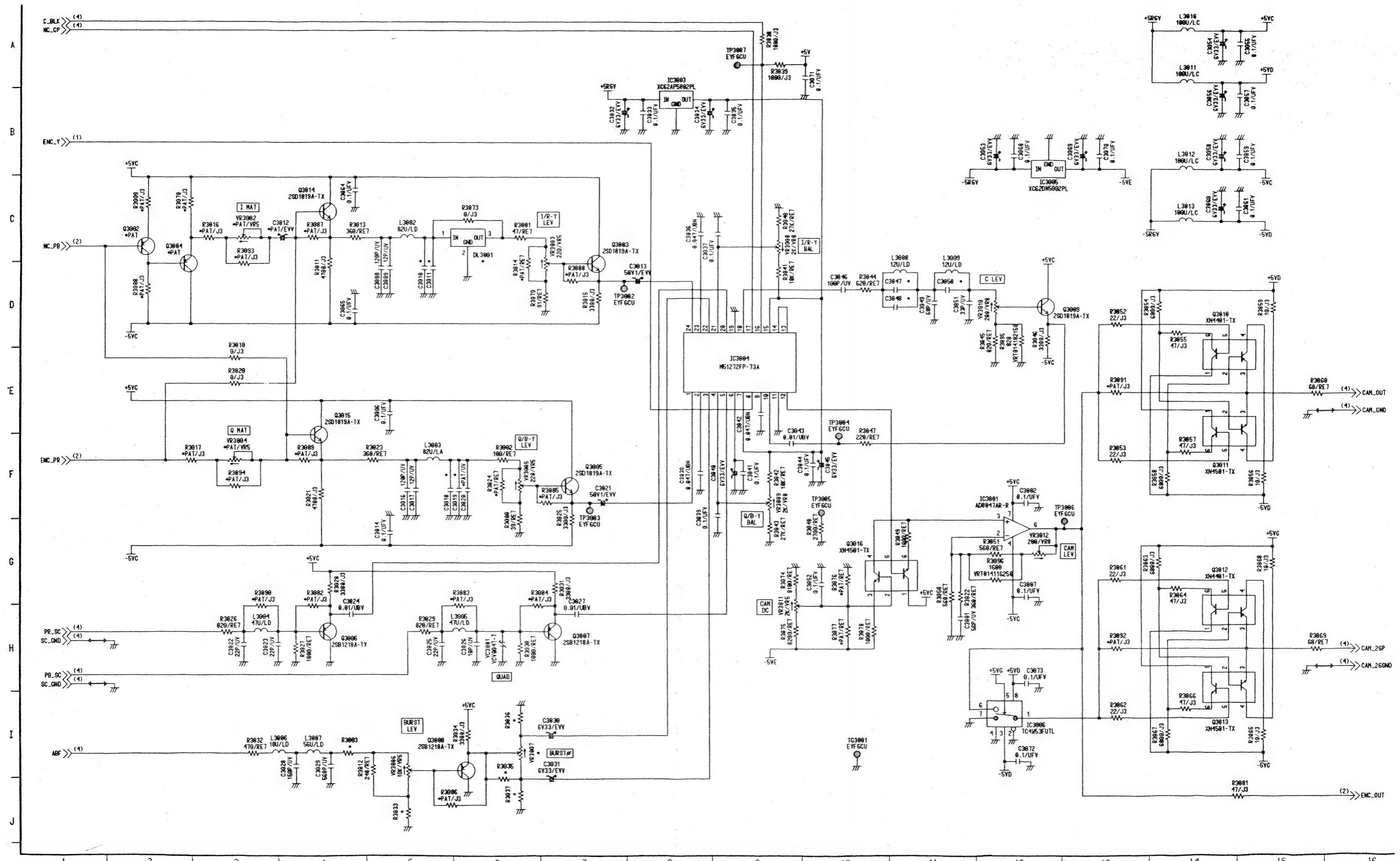
# CAMERA ENCODER (1/7) SCHEMATIC DIAGRAM



CAMERA ENCODER (2/7) SCHEMATIC DIAGRAM

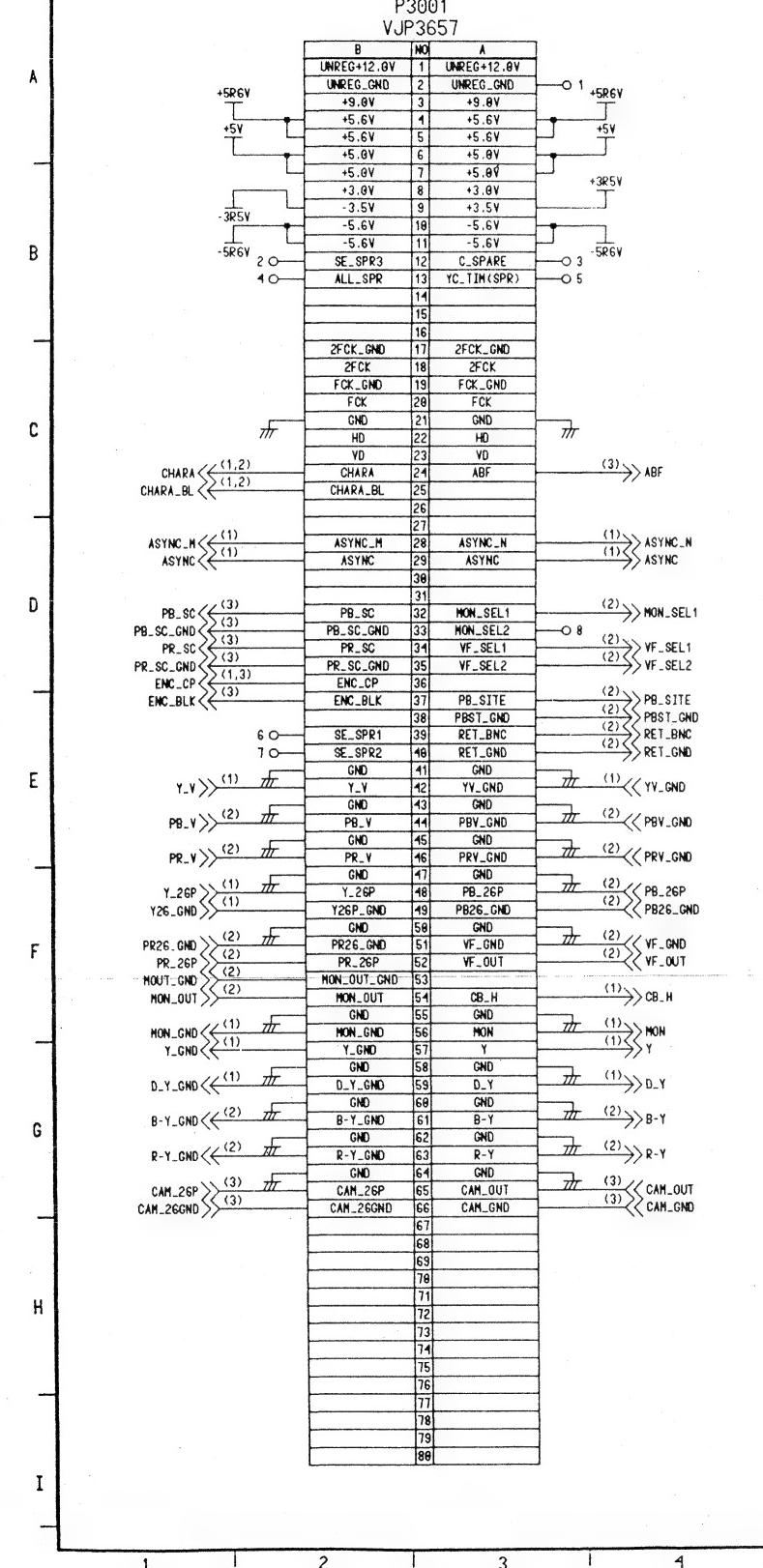


## CAMERA ENCODER (3/7) SCHEMATIC DIAGRAM



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## **CAMERA ENCODER (4/7) CONNECTOR SCHEMATIC DIAGRAM**



## **CAMERA ENCODER (5/7) COMPARISON CHART 1 BETWEEN MODELS**

| \$REF\$ | NTSC     | PAL      | ON           |
|---------|----------|----------|--------------|
| C3010   | 56P/UV   | 100P/UV  | 56P/UV       |
| C3011   | 33P/UV   | 15P/UV   | 33P/UV       |
| C3012   | *PAT/EVV | *PAT/EVV | 6V33/EVV     |
| C3018   | 56P/UV   | 100P/UV  | 680P/USV     |
| C3019   | 33P/UV   | 15P/UV   | 330P/UV      |
| C3020   | *PAT/UV  | *PAT/UV  | 9P/UV        |
| C3047   | 3P/UV    | 2P/UV    | 3P/UV        |
| C3048   | 33P/UV   | 18P/UV   | 33P/UV       |
| C3050   | 18P/UV   | 9P/UV    | 18P/UV       |
| C3101   | 8P/UV    | 22P/UV   | 18P/UV       |
| C3102   | 100P/UV  | 180P/UV  | 120P/UV      |
| C3103   | *PAT/UV  | 33P/UV   | 12P/UV       |
| C3111   | 8P/UV    | 22P/UV   | 18P/UV       |
| C3112   | 100P/UV  | 180P/UV  | 120P/UV      |
| C3113   | *PAT/UV  | 33P/UV   | 12P/UV       |
| C3114   | 8P/UV    | 22P/UV   | 18P/UV       |
| C3115   | 100P/UV  | 180P/UV  | 120P/UV      |
| C3116   | *PAT/UV  | 33P/UV   | 12P/UV       |
| C3117   | *PAT/UV  | *PAT/UV  | 18P/UV       |
| C3118   | *PAT/UV  | *PAT/UV  | 18P/UV       |
| C3119   | *PAT/UV  | *PAT/UV  | 1P/UV        |
| C3147   | *PAT/UV  | *PAT/UV  | 27P/UV       |
| C3222   | *PAT/UV  | *PAT/UV  | 27P/UV       |
| C3223   | *PAT/UV  | *PAT/UV  | 27P/UV       |
| C3408   | *PAT/UV  | *PAT/UV  | 12P/UV       |
| C3432   | *PAT/UV  | *PAT/UV  | 27P/UV       |
| C3433   | *PAT/UV  | *PAT/UV  | 27P/UV       |
| DL3001  | *PAT     | *PAT     | ELB4M087     |
| IC3407  | *PAT     | *PAT     | MC74HC4053FR |
| L3101   | 47U/LD   | 100U/LD  | 47U/LD       |
| L3102   | 47U/LD   | 100U/LD  | 47U/LD       |
| L3103   | 47U/LD   | 100U/LD  | 47U/LD       |
| L3107   | *PAT     | *PAT     | 39U/LD       |
| O3002   | *PAT     | *PAT     | 2SB1218A-TX  |
| O3004   | *PAT     | *PAT     | 2SB1218A-TX  |
| R3003   | 110/RE7  | 0/J3     | 110/RE7      |
| R3008   | *PAT/J3  | *PAT/J3  | 560/J3       |
| R3009   | *PAT/J3  | *PAT/J3  | 560/J3       |

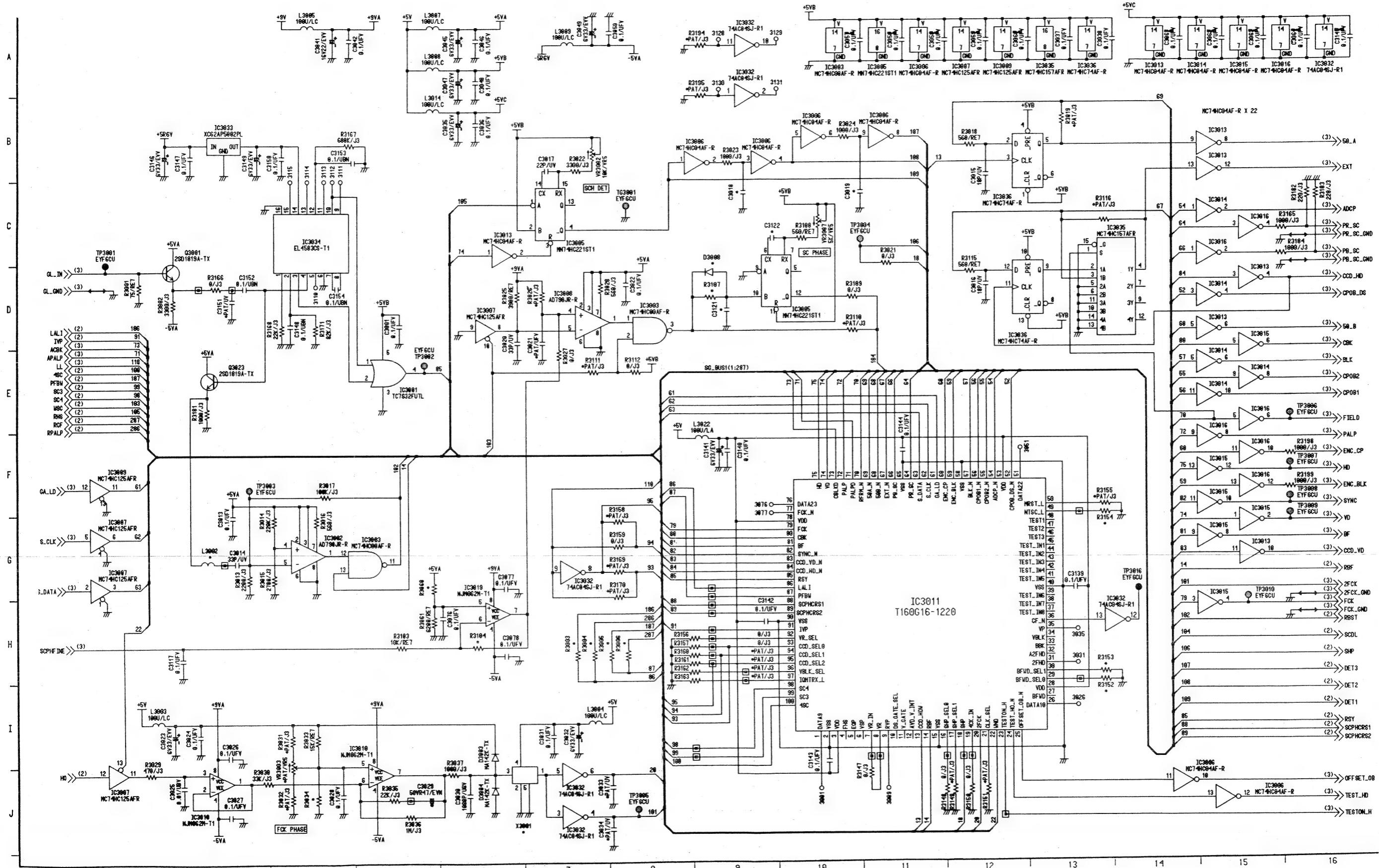
## **CAMERA ENCODER (6/7) COMPARISON CHART 2 BETWEEN MODELS**

| \$REF\$ | NTSC     | PAL      | ON       |
|---------|----------|----------|----------|
| R3014   | *PAT/RE7 | *PAT/RE7 | 180/RE7  |
| R3016   | *PAT/J3  | *PAT/J3  | 820/J3   |
| R3017   | *PAT/J3  | *PAT/J3  | 820/J3   |
| R3024   | *PAT/RE7 | *PAT/RE7 | 180/RE7  |
| R3033   | 120/RE7  | 240/RE7  | 120/RE7  |
| R3035   | 0/J3     | *PAT/J3  | 0/J3     |
| R3036   | 0/J3     | *PAT/J3  | 0/J3     |
| R3037   | *PAT/J3  | *PAT/J3  | 2200/J3  |
| R3070   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3076   | *PAT/RE7 | *PAT/RE7 | 12K/RE7  |
| R3077   | *PAT/RE7 | *PAT/RE7 | 8200/RE7 |
| R3082   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3083   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3084   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3085   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3086   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3087   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3088   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3089   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3090   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3091   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3092   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3093   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3094   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3110   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3114   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3119   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3121   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3138   | *PAT/RE7 | *PAT/RE7 | 240/RE7  |
| R3142   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3151   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3153   | *PAT/RE7 | *PAT/RE7 | 270/RE7  |
| R3157   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3164   | *PAT/J3  | *PAT/J3  | 1000/J3  |
| R3173   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3205   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3237   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3271   | *PAT/J3  | *PAT/J3  | 0/J3     |

## **CAMERA ENCODER (7/7) COMPARISON CHART 3 BETWEEN MODELS**

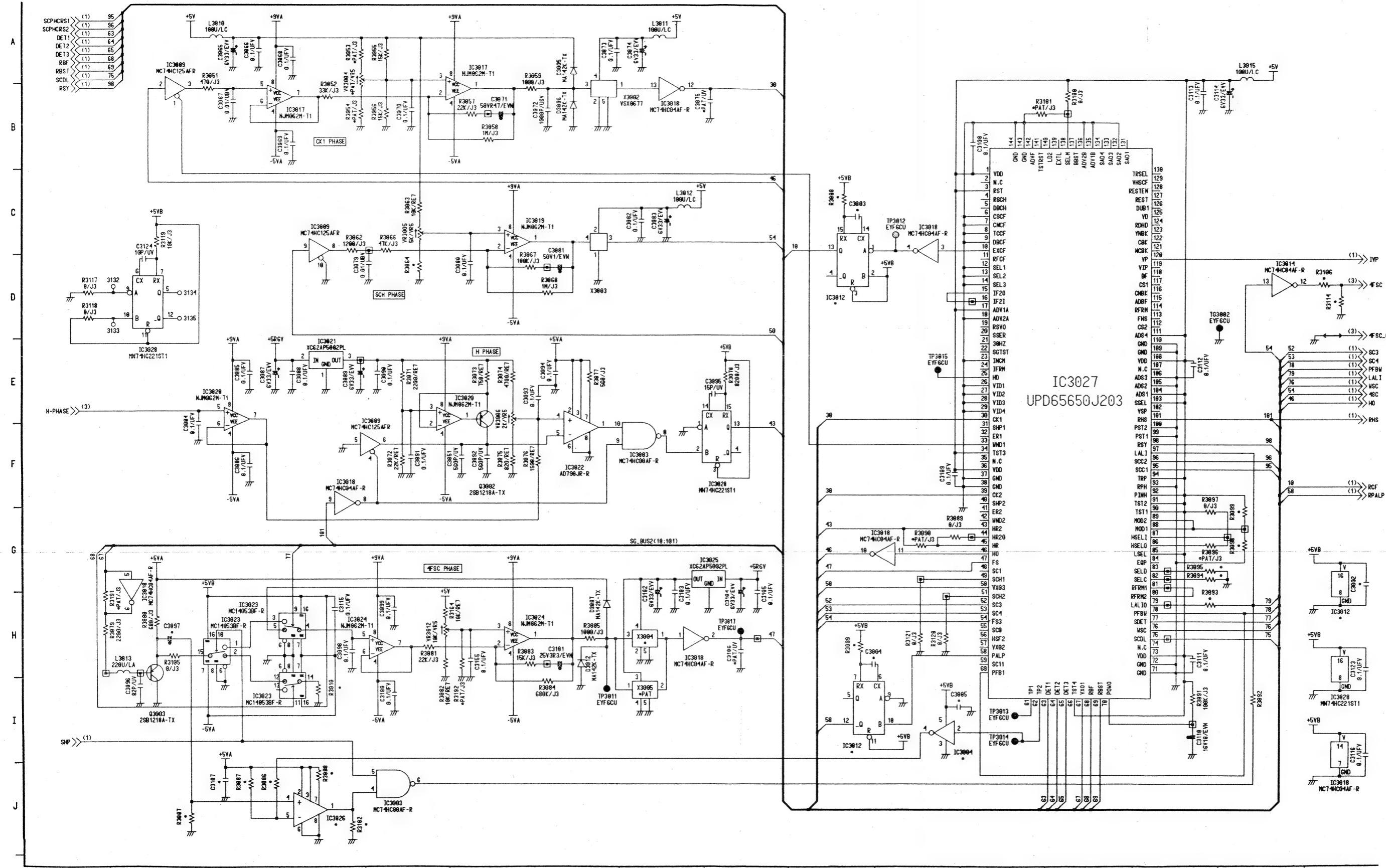
| \$REF\$ | NTSC     | PAL      | ON       |
|---------|----------|----------|----------|
| R3272   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3275   | *PAT/J3  | *PAT/J3  | 47/J3    |
| R3407   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3415   | *PAT/RE7 | *PAT/RE7 | 220/RE7  |
| R3419   | *PAT/RE7 | *PAT/RE7 | 2200/RE7 |
| R3421   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3427   | *PAT/J3  | *PAT/J3  | 0/J3     |
| VR3002  | *PAT/VR5 | *PAT/VR5 | 1K/VR5   |
| VR3004  | *PAT/VR5 | *PAT/VR5 | 1K/VR5   |
| VR3007  | *PAT/VR5 | 5K/VR5   | 5K/VR5   |

## CAMERA SYNC (1/5) SCHEMATIC DIAGRAM

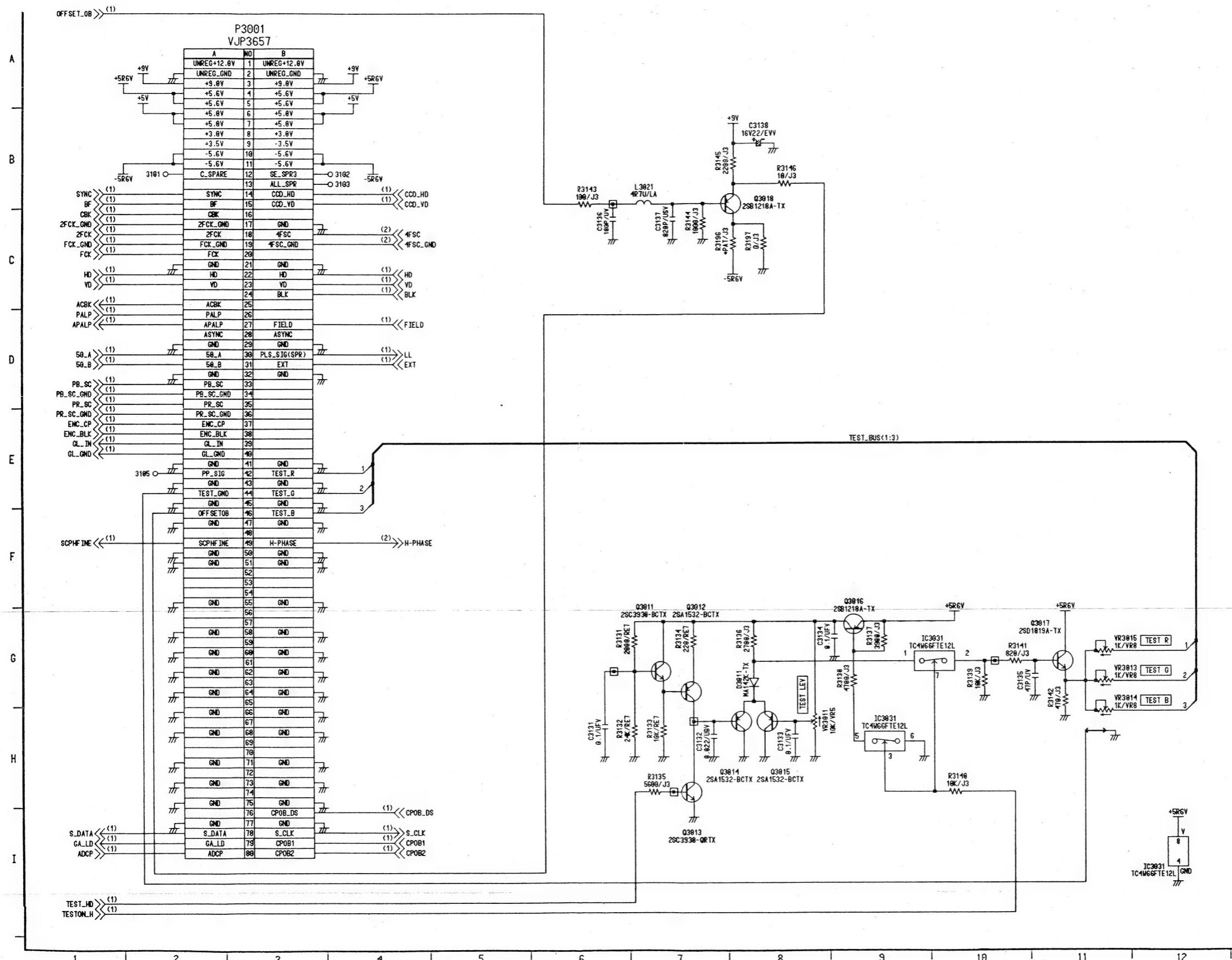


**REVERSE SIDE**

## CAMERA SYNC (2/5) SCHEMATIC DIAGRAM



## CAMERA SYNC (3/5) SCHEMATIC DIAGRAM



REVERSE SIDE

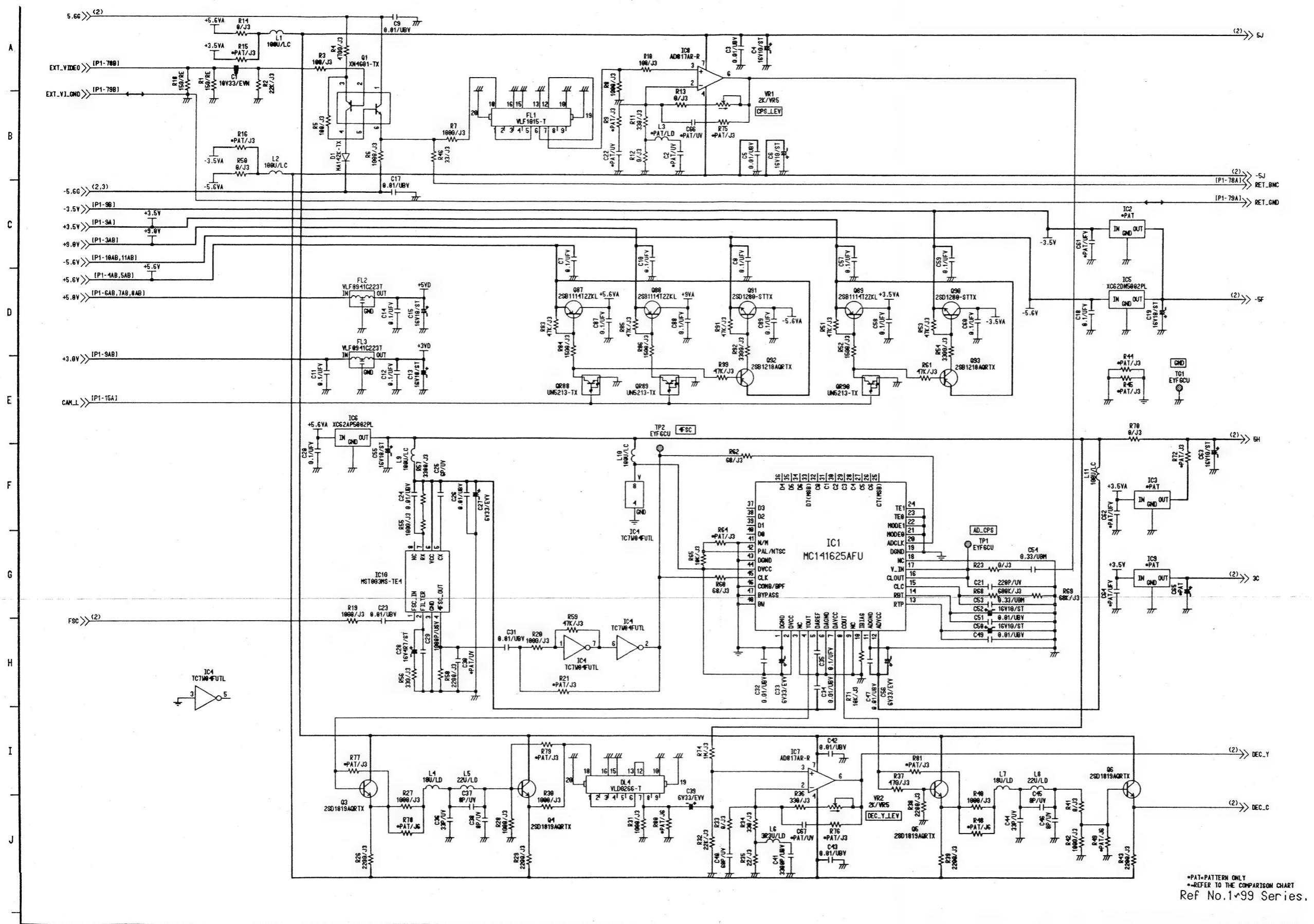
**CAMERA SYNC (4/5)**  
**COMPARISON CHART 1 BETWEEN MODELS**

| \$REF\$ | NTSC      | PAL          | ON           |
|---------|-----------|--------------|--------------|
| C3002   | *PAT/UVF  | 0. 1/UVF     | 0. 1/UVF     |
| C3003   | *PAT/UV   | 10P/UV       | 10P/UV       |
| C3004   | *PAT/UV   | 150P/UV      | 150P/UV      |
| C3005   | *PAT/UVF  | 0. 1/UVF     | 0. 1/UVF     |
| C3018   | 15P/UV    | *PAT/UV      | 15P/UV       |
| C3019   | 15P/UV    | *PAT/UV      | 15P/UV       |
| C3021   | *PAT/UVF  | *PAT/UVF     | 0. 1/UVF     |
| C3033   | *PAT/UV   | *PAT/UV      | 10P/UV       |
| C3034   | *PAT/UV   | *PAT/UV      | 10P/UV       |
| C3075   | *PAT/UV   | *PAT/UV      | 10P/UV       |
| C3097   | *PAT/EVN  | 16V10/EVN    | 16V10/EVN    |
| C3106   | *PAT/UV   | *PAT/UV      | 10P/UV       |
| C3107   | *PAT/UVF  | 0. 1/UVF     | 0. 1/UVF     |
| C3121   | 10P/UV    | *PAT/UV      | 10P/UV       |
| C3122   | 22P/UV    | 12P/UV       | 22P/UV       |
| C3151   | *PAT/UV   | *PAT/UV      | 470P/UV      |
| D3008   | MA142K-TX | *PAT         | MA142K-TX    |
| IC3004  | *PAT      | TC7S04FUTL   | TC7S04FUTL   |
| IC3012  | *PAT      | MN74HC221ST1 | MN74HC221ST1 |
| IC3026  | *PAT      | AD790JR-R    | AD790JR-R    |
| L3002   | 68U/LA    | 39U/LA       | 68U/LA       |
| R3003   | 0/J3      | *PAT/J3      | 0/J3         |
| R3004   | *PAT/J3   | 0/J3         | 0/J3         |
| R3005   | 0/J3      | *PAT/J3      | 0/J3         |
| R3006   | *PAT/J3   | 0/J3         | 0/J3         |
| R3007   | *PAT/J3   | 10K/J3       | 10K/J3       |
| R3008   | *PAT/J3   | 15K/J3       | 15K/J3       |
| R3009   | *PAT/J3   | 270K/J3      | 270K/J3      |
| R3010   | 0/J3      | *PAT/J3      | 0/J3         |
| R3019   | *PAT/J3   | *PAT/J3      | 6800/J3      |
| R3026   | *PAT/J3   | *PAT/J3      | 12K/J3       |
| R3031   | *PAT/J3   | *PAT/J3      | 10K/J3       |
| R3032   | *PAT/J3   | *PAT/J3      | 10K/J3       |
| R3034   | 16K/RE7   | 20K/RE7      | 16K/RE7      |
| R3053   | *PAT/J3   | *PAT/J3      | 10K/J3       |
| R3054   | *PAT/J3   | *PAT/J3      | 10K/J3       |
| R3060   | 9100/RE7  | 10K/RE7      | 9100/RE7     |
| R3064   | 13K/RE7   | 18K/RE7      | 13K/RE7      |
| R3086   | *PAT/J3   | 4700/J3      | 4700/J3      |
| R3087   | *PAT/J3   | 18K/J3       | 18K/J3       |
| R3088   | *PAT/J3   | 560/J3       | 560/J3       |
| R3090   | *PAT/J3   | *PAT/J3      | 0/J3         |
| R3092   | *PAT/J3   | 0/J3         | 0/J3         |

**CAMERA SYNC (5/5)**  
**COMPARISON CHART 2 BETWEEN MODELS**

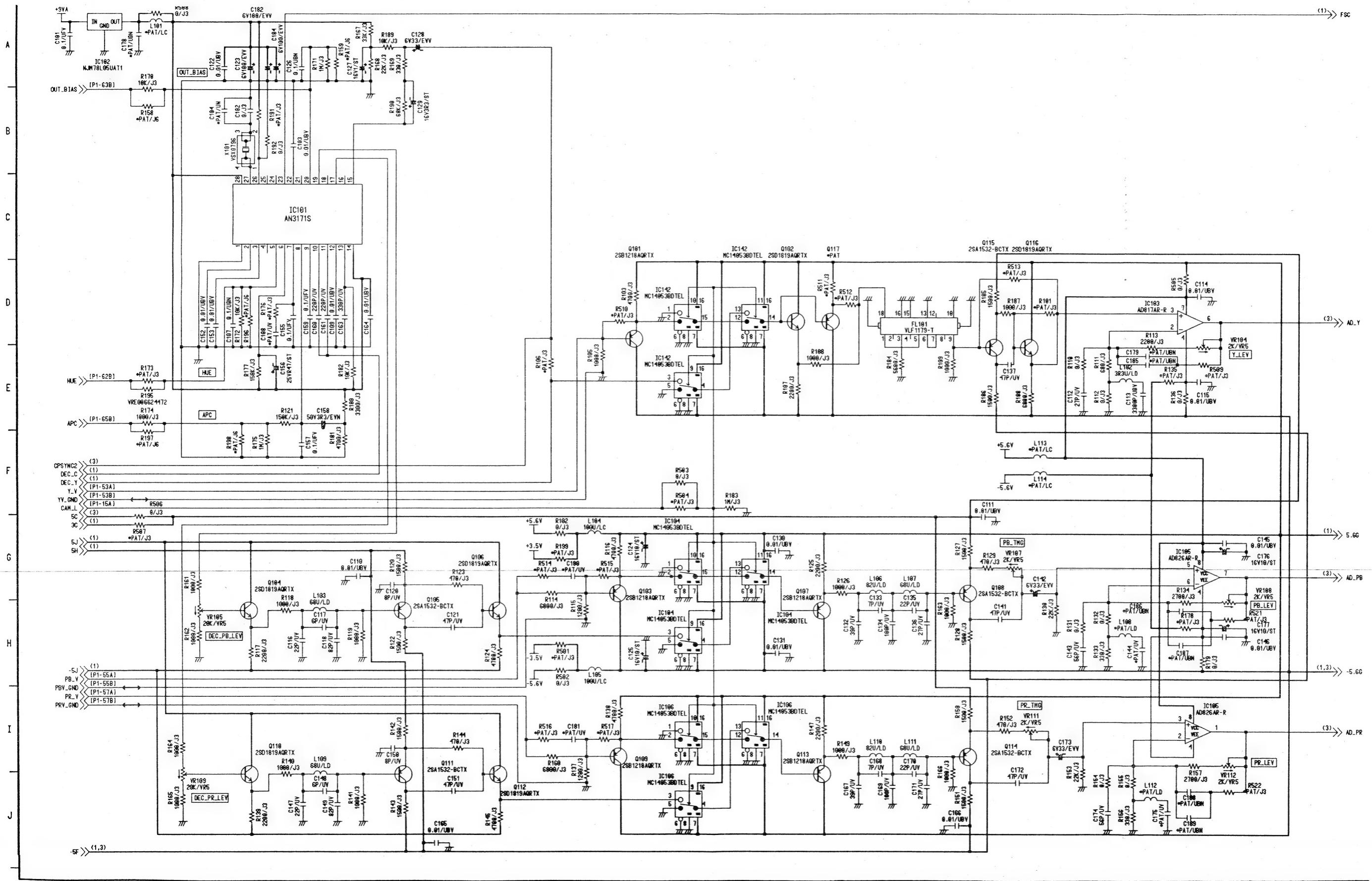
| \$REF\$ | NTSC     | PAL      | ON       |
|---------|----------|----------|----------|
| R3093   | 0/J3     | *PAT/J3  | 0/J3     |
| R3094   | *PAT/J3  | 0/J3     | 0/J3     |
| R3095   | *PAT/J3  | 0/J3     | 0/J3     |
| R3096   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3098   | 0/J3     | *PAT/J3  | 0/J3     |
| R3099   | *PAT/J3  | 0/J3     | 0/J3     |
| R3101   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3102   | 0/J3     | *PAT/J3  | 0/J3     |
| R3104   | 5600/RE7 | 4700/RE7 | 5600/RE7 |
| R3106   | *PAT/J3  | 1000/J3  | 1000/J3  |
| R3107   | 820/RE7  | 0/J3     | 820/RE7  |
| R3110   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3111   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3114   | *PAT/J3  | 1000/J3  | 1000/J3  |
| R3116   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3149   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3151   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3152   | 0/J3     | *PAT/J3  | 0/J3     |
| R3153   | *PAT/J3  | 0/J3     | 0/J3     |
| R3154   | 0/J3     | *PAT/J3  | 0/J3     |
| R3155   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3158   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3160   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3161   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3162   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3163   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3169   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3170   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3191   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3192   | *PAT/J3  | *PAT/J3  | 18K/J3   |
| R3194   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3195   | *PAT/J3  | *PAT/J3  | 0/J3     |
| R3196   | *PAT/J3  | *PAT/J3  | 0/J3     |
| VR3003  | *PAT/VR5 | *PAT/VR5 | 5K/VR5   |
| VR3004  | *PAT/VR5 | *PAT/VR5 | 5K/VR5   |
| X3001   | VSX0686  | VSX0687  | VSX0686  |
| X3003   | VSX0338  | VSX0270  | VSX0338  |
| X3004   | VSX0688  | VSX0689  | VSX0688  |
| X3005   | *PAT     | *PAT     | VSX0332  |

## **VIDEO IF (1/5) SCHEMATIC DIAGRAM**

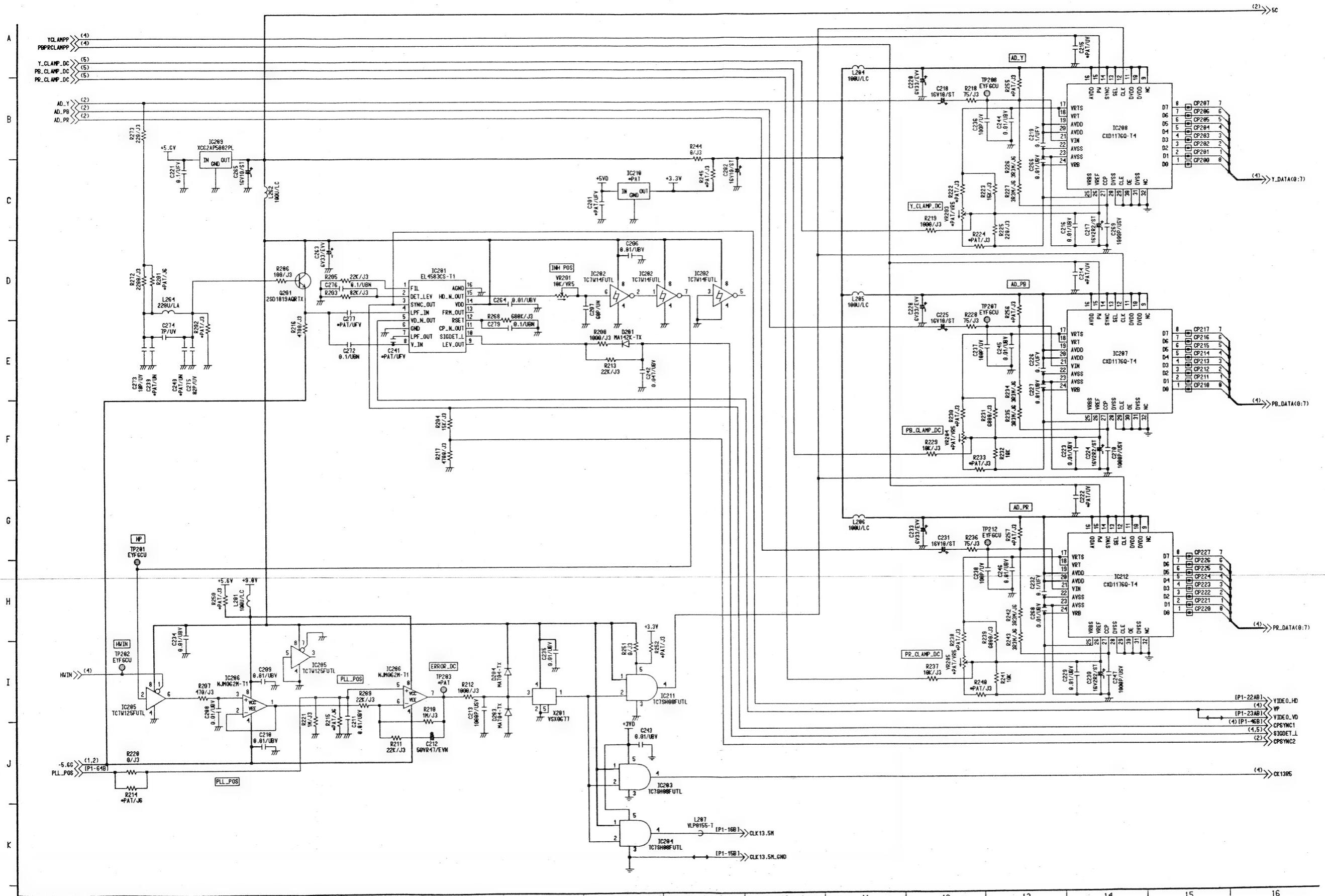


•PAT-PATTERN ONLY  
•REFER TO THE COMPARISON CHART  
Ref No.199 Series,

## VIDEO IF (2/5) SCHEMATIC DIAGRAM



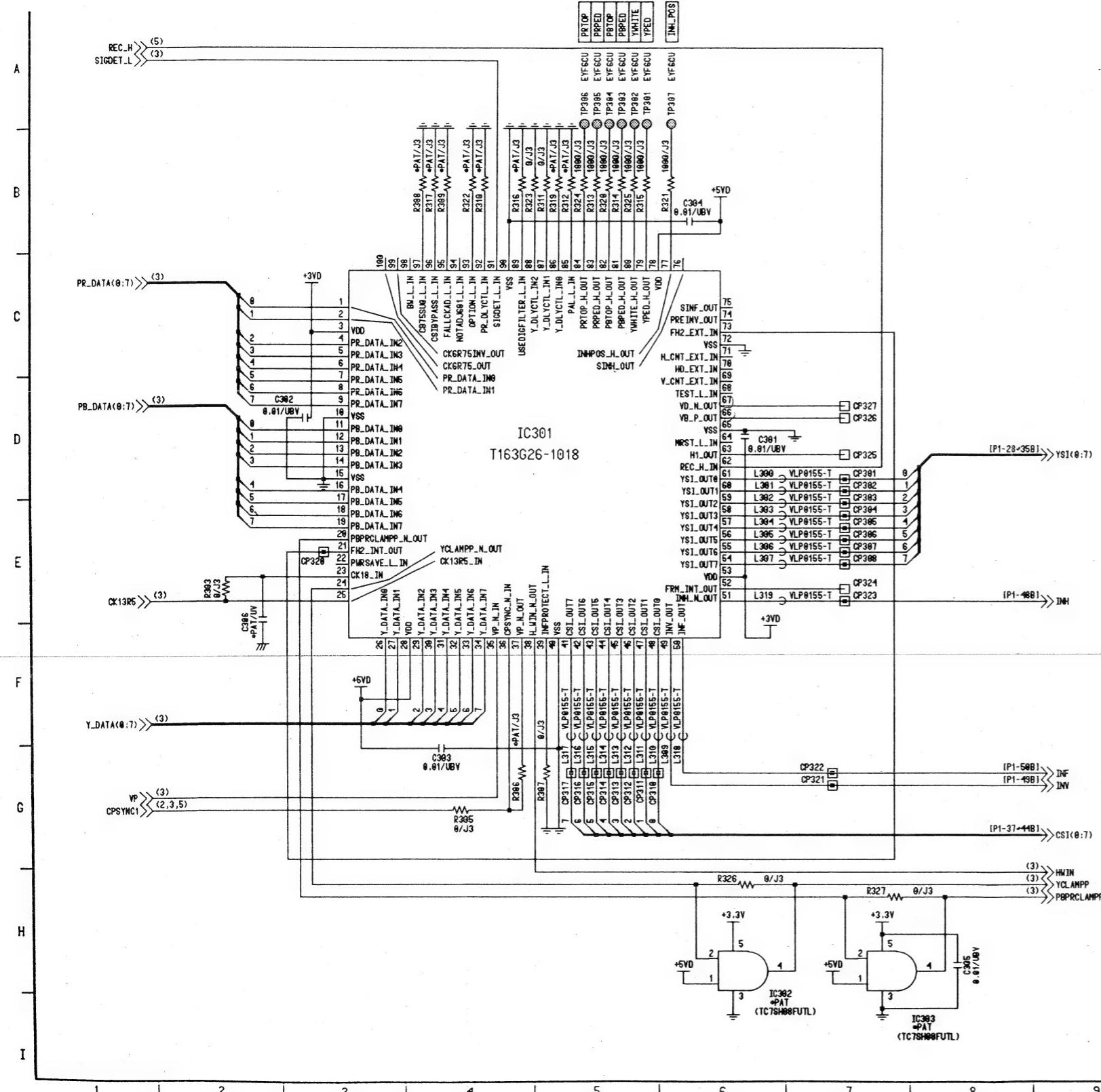
## **VIDEO IF (3/5) SCHEMATIC DIAGRAM**



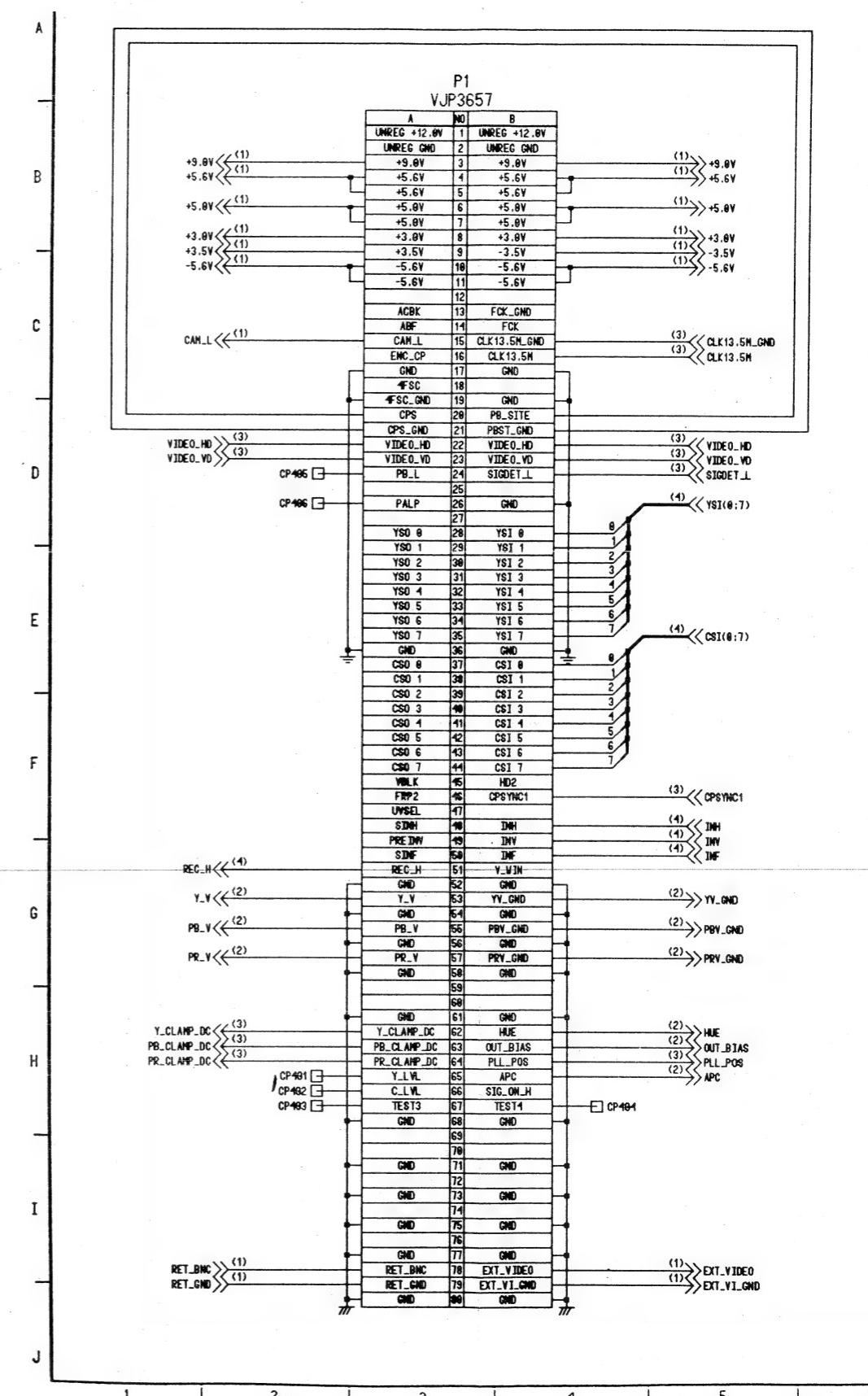
REVERSE SIDE

2-3

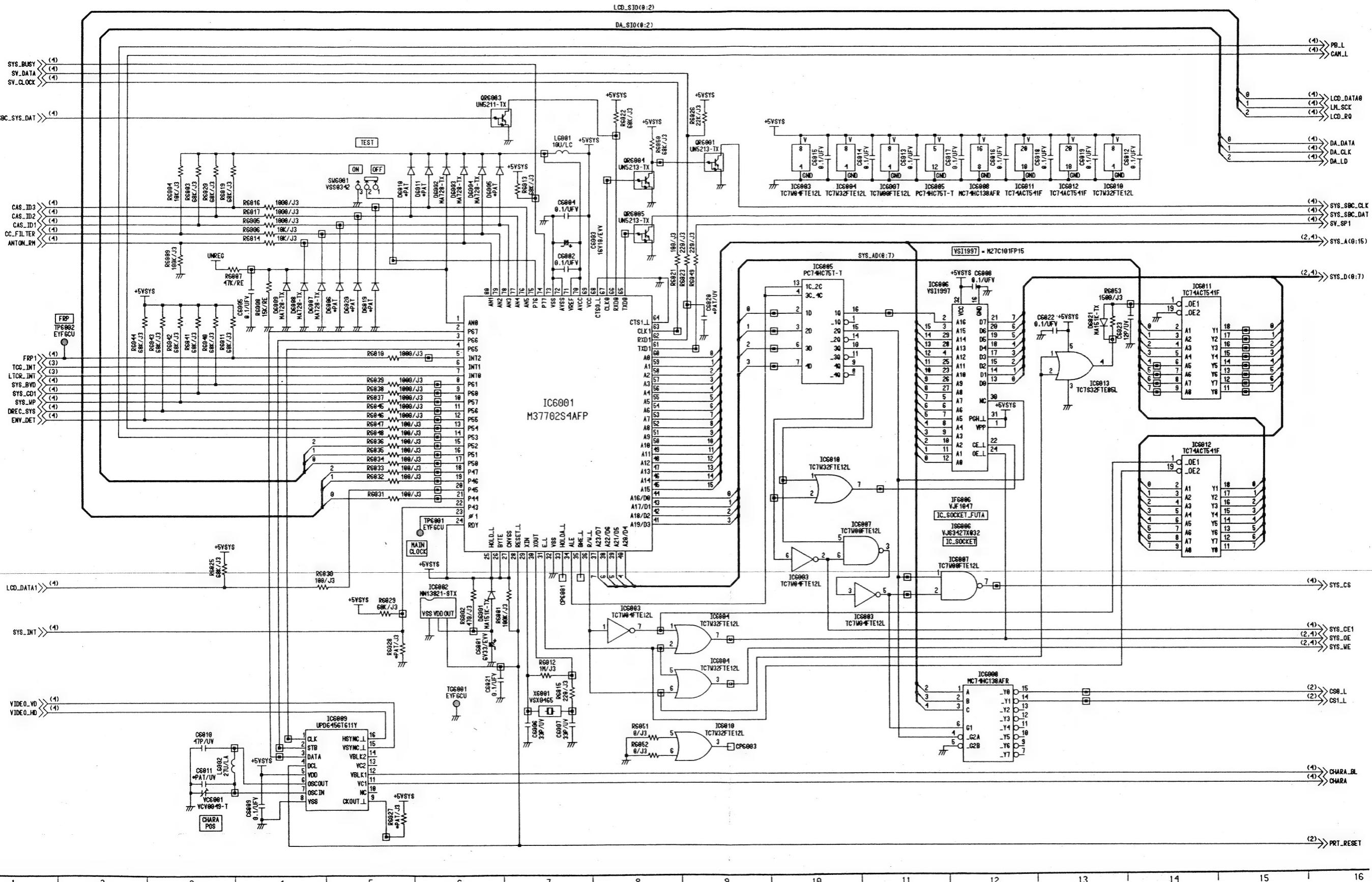
## VIDEO IF (4/5) SCHEMATIC DIAGRAM



## VIDEO IF (5/5) CONNECTOR SCHEMATIC DIAGRAM

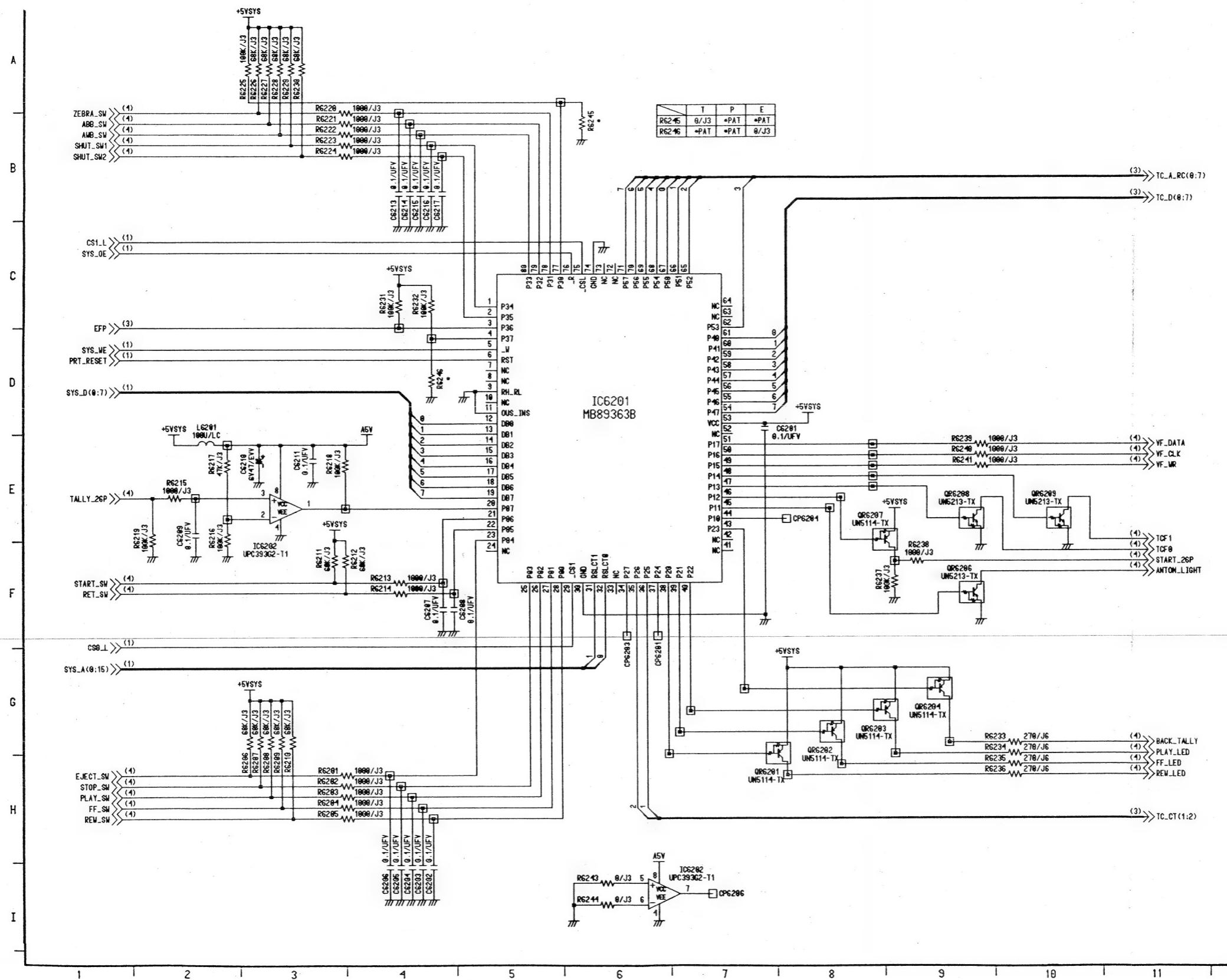


# **VTR SYSCON (1/5) SCHEMATIC DIAGRAM**

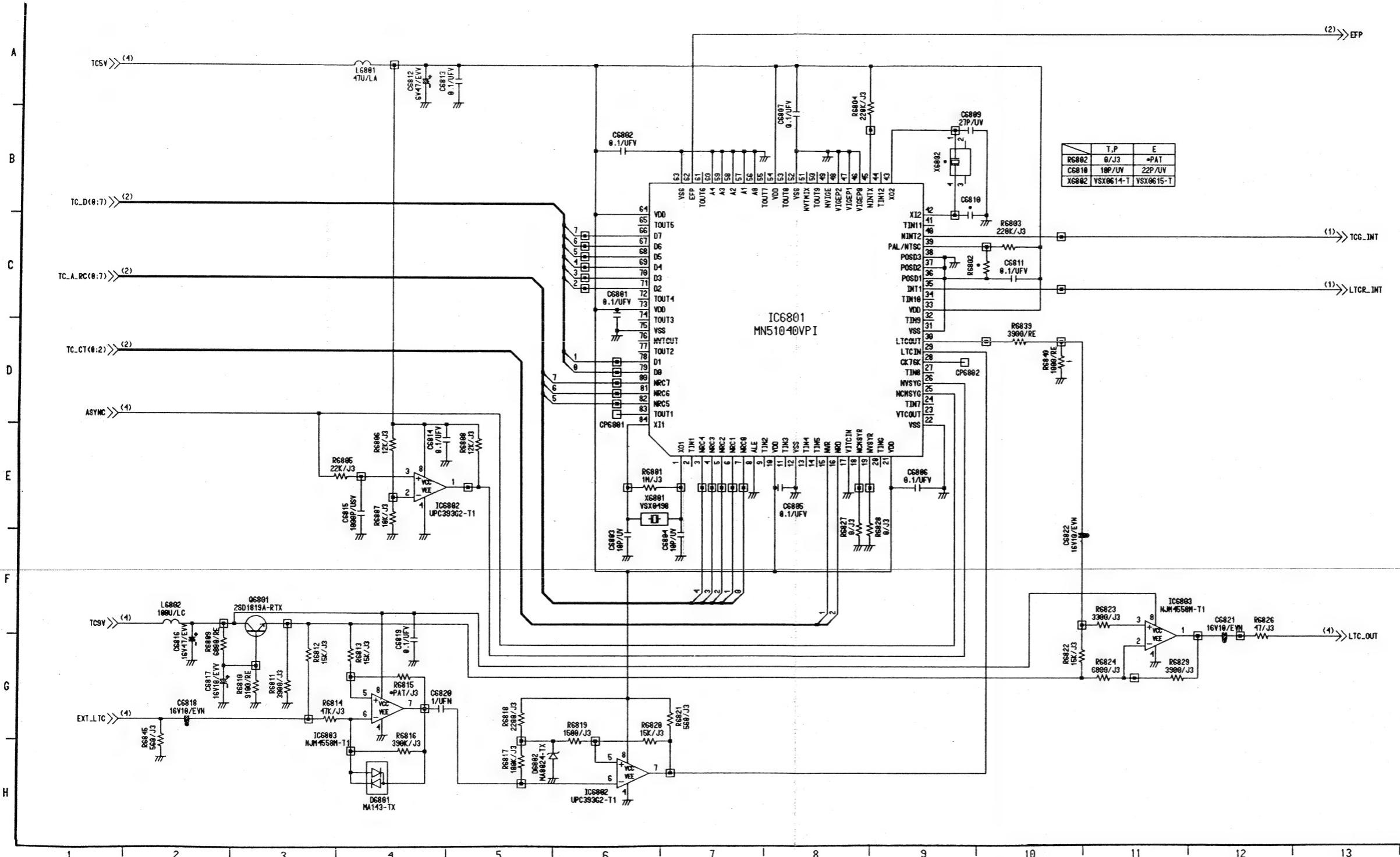


REVERSE SIDE

## **VTR SYSCON (2/5) SCHEMATIC DIAGRAM**

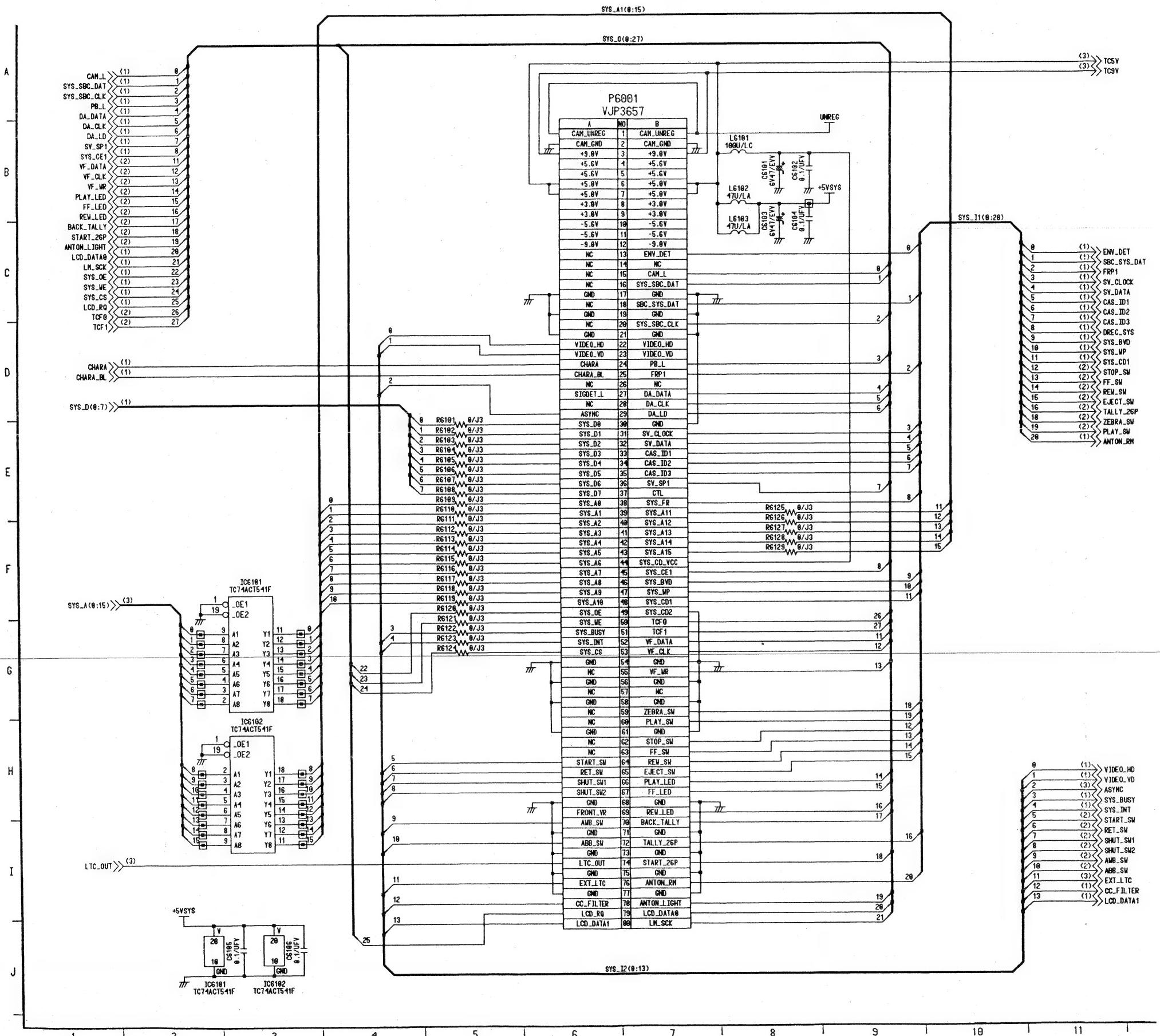


## VTR SYSCON (3/5) SCHEMATIC DIAGRAM



REVERSE SIDE

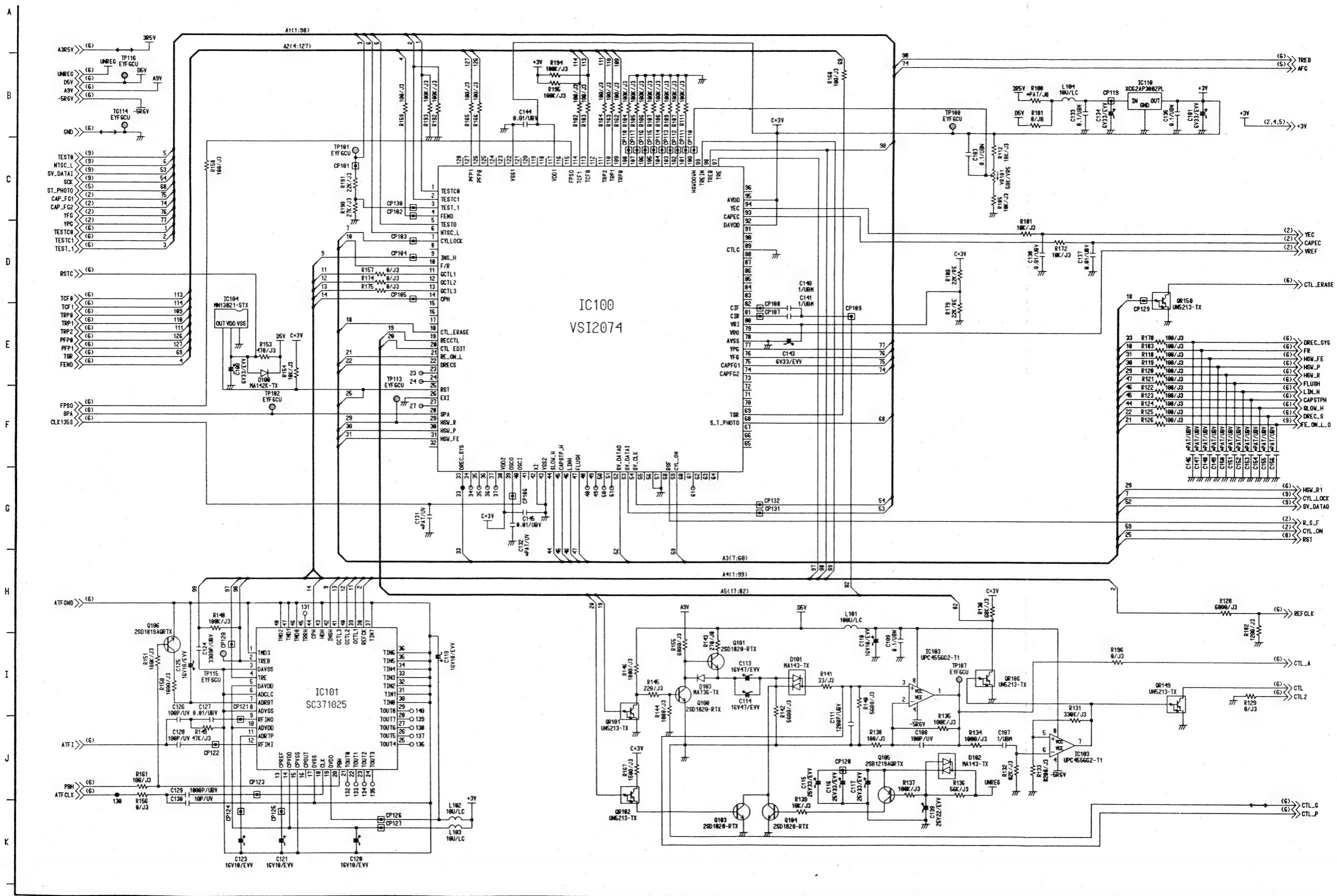
## **VTR SYSCON (4/5) CONNECTOR SCHEMATIC DIAGRAM**



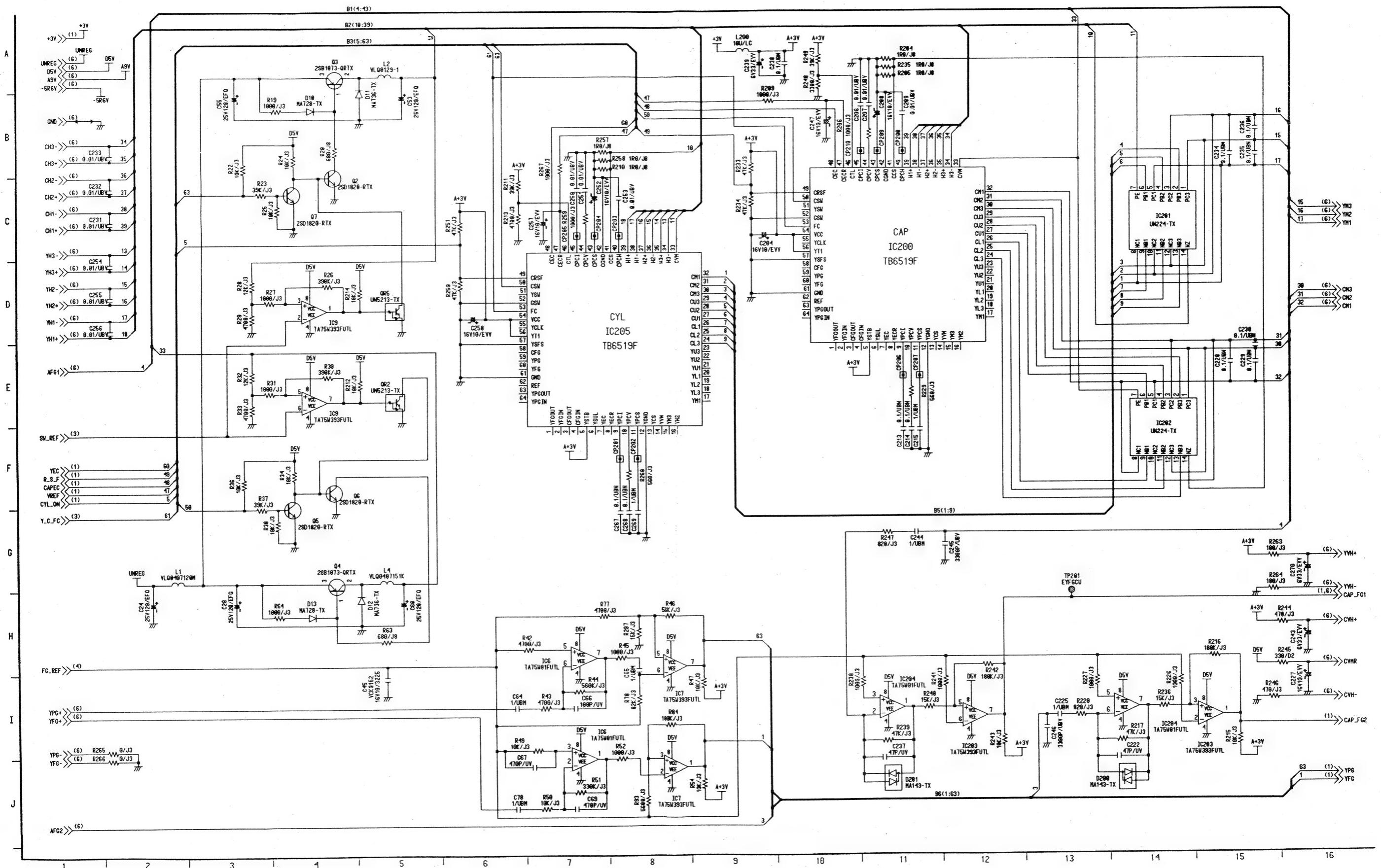
## VTR SYSCON (5/5) COMPARISON CHART BETWEEN MODELS

| \$REF\$ | T         | P         | E         | ON        |
|---------|-----------|-----------|-----------|-----------|
| C6011   | *PAT/UV   | *PAT/UV   | *PAT/UV   | 33P/UV    |
| C6020   | *PAT/UV   | *PAT/UV   | *PAT/UV   | 33P/UV    |
| C6810   | 18P/UV    | 18P/UV    | 22P/UV    | 18P/UV    |
| D6005   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| D6006   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| D6010   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| D6011   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| D6019   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| D6020   | *PAT      | *PAT      | *PAT      | MA728-TX  |
| R6027   | *PAT/J3   | *PAT/J3   | *PAT/J3   | 0/J3      |
| R6028   | *PAT/J3   | *PAT/J3   | *PAT/J3   | 0/J3      |
| R6245   | 0/J3      | *PAT/J3   | *PAT/J3   | 0/J3      |
| R6246   | *PAT/J3   | *PAT/J3   | 0/J3      | 0/J3      |
| R6802   | 0/J3      | 0/J3      | *PAT/J3   | 0/J3      |
| R6815   | *PAT/J3   | *PAT/J3   | *PAT/J3   | 100K/J3   |
| X6802   | VSX0614-T | VSX0614-T | VSX0615-T | VSX0614-T |

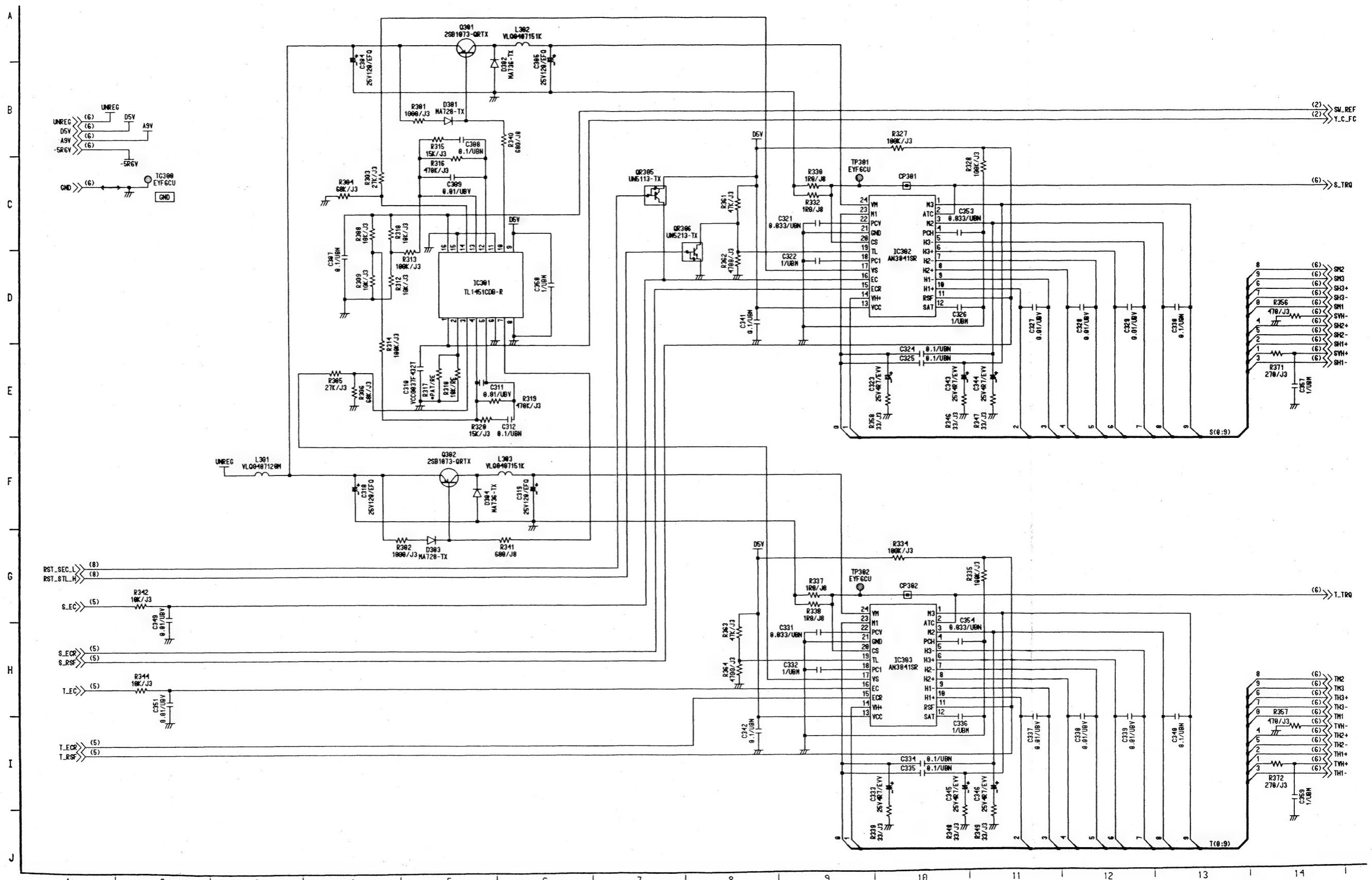
## SERVO (1/9) SCHEMATIC DIAGRAM



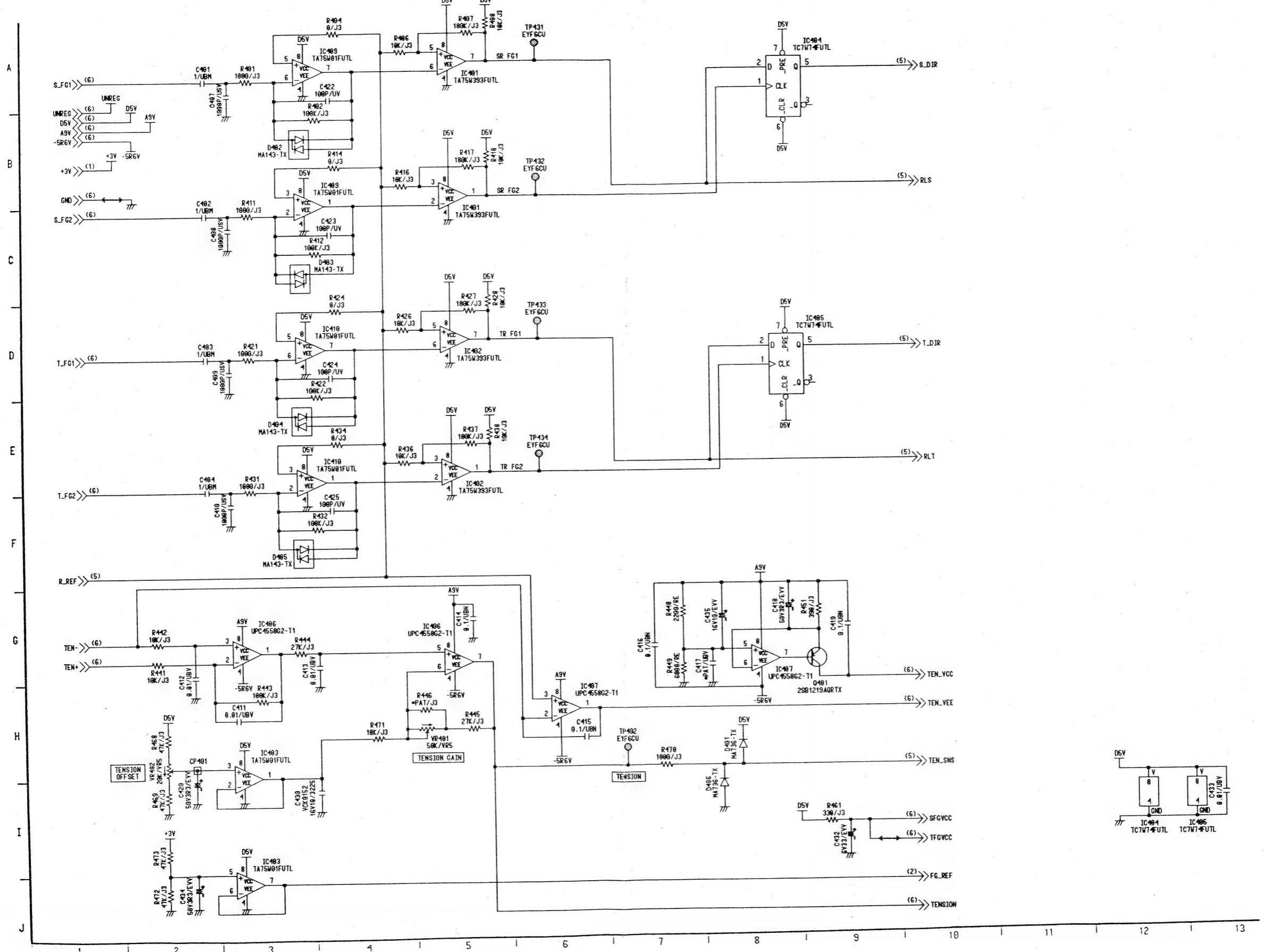
## SERVO (2/9) SCHEMATIC DIAGRAM



## SERVO (3/9) SCHEMATIC DIAGRAM

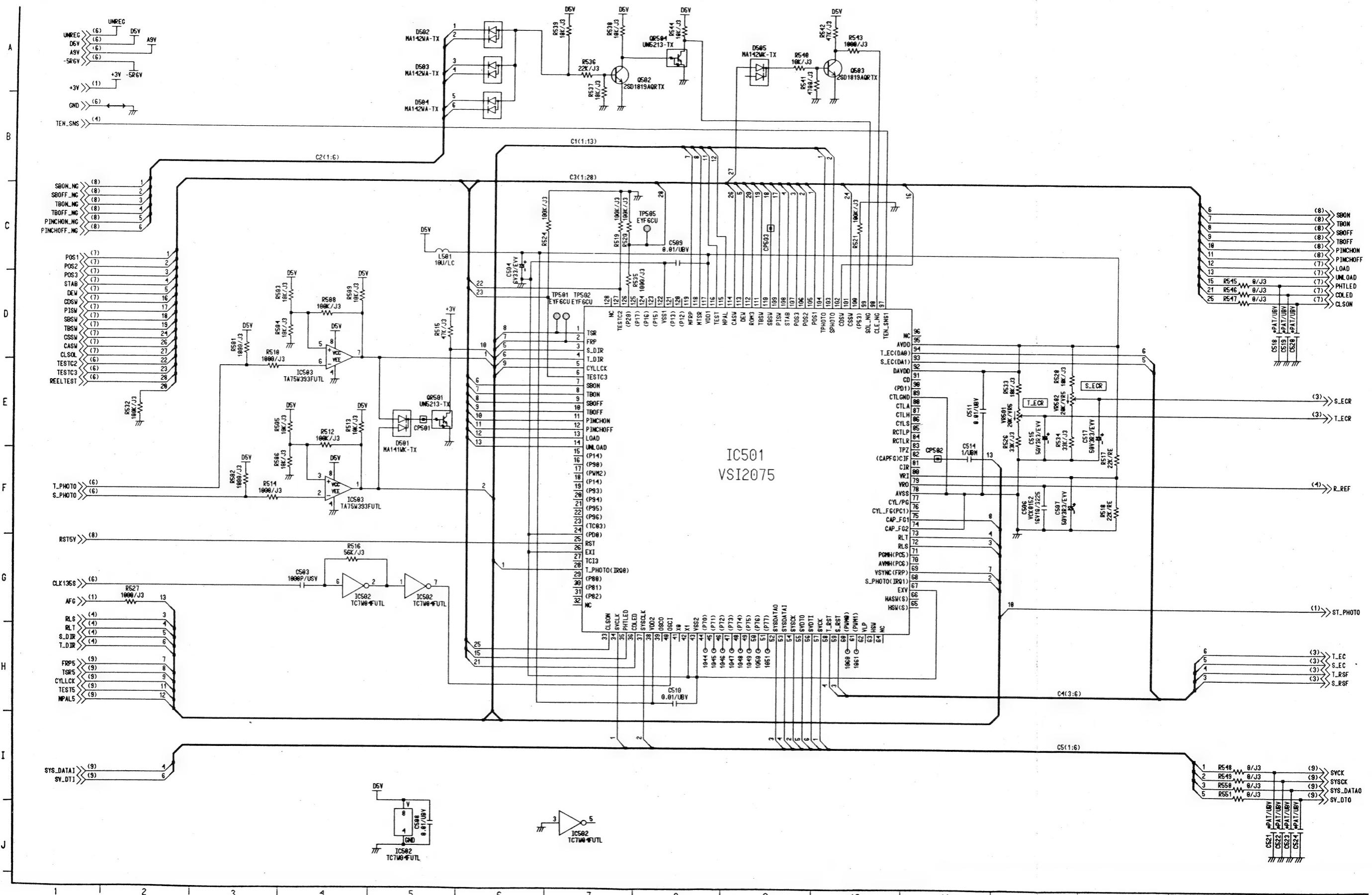


## SERVO (4/9) SCHEMATIC DIAGRAM

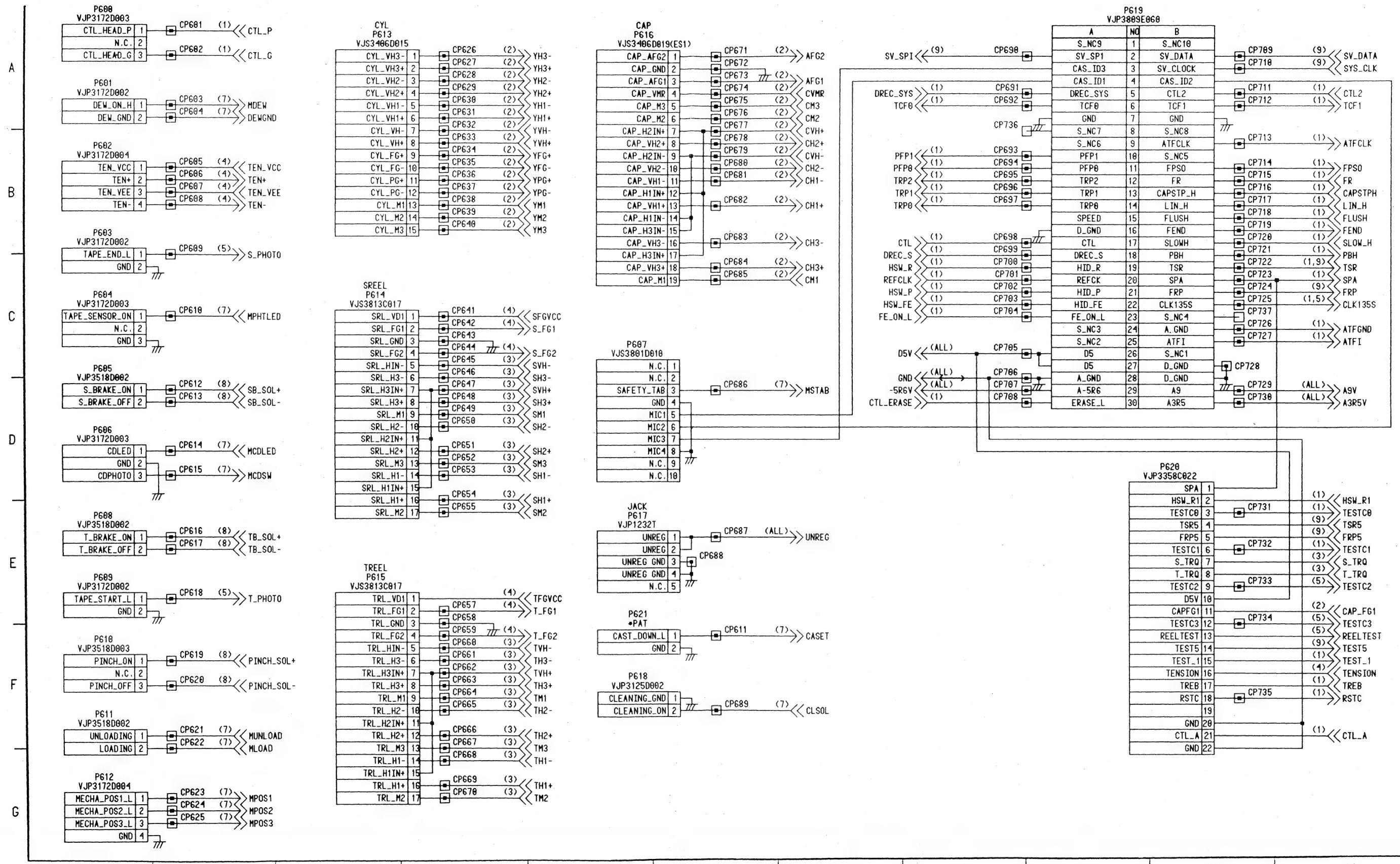


REVERSE SIDE

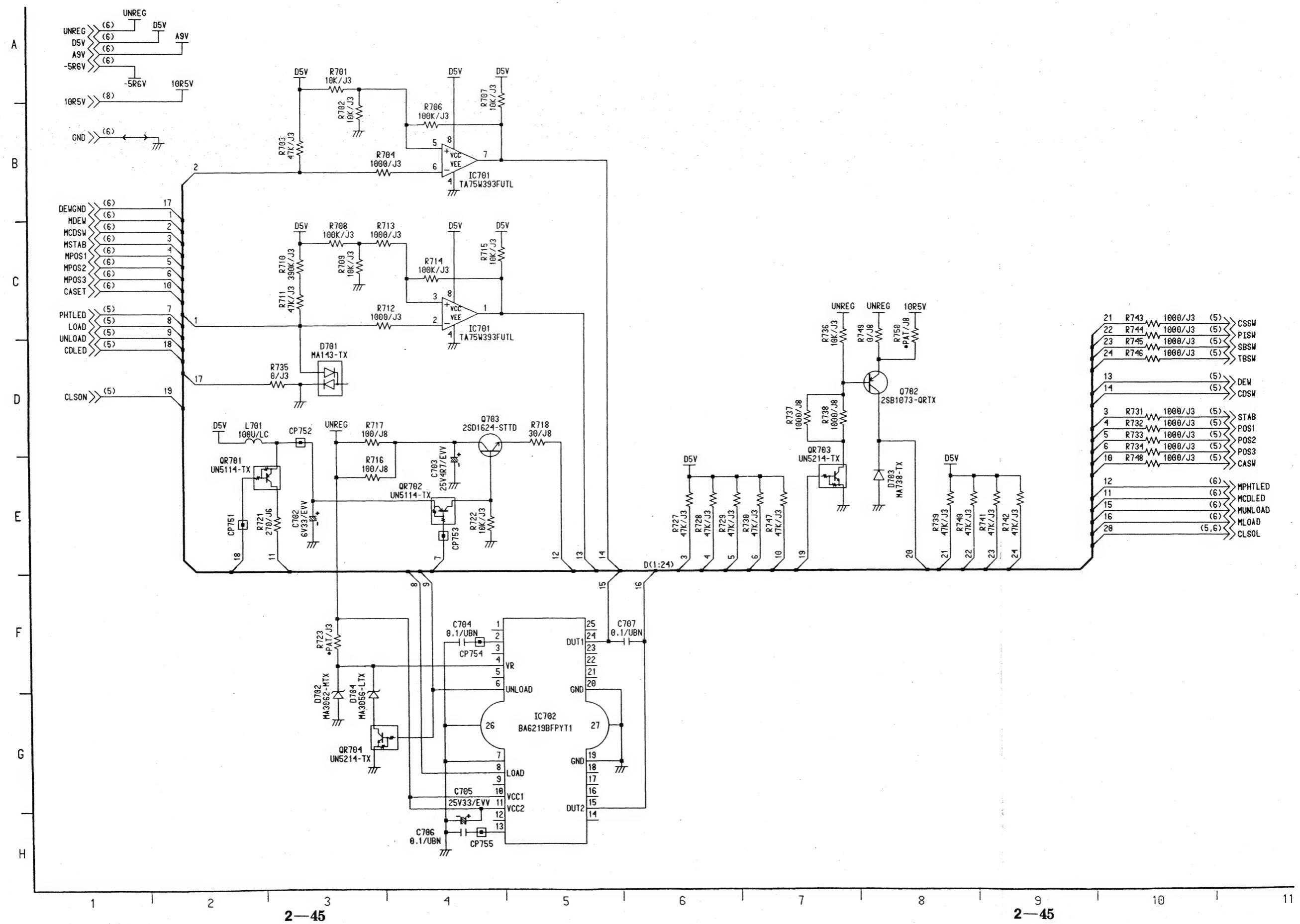
## SERVO (5/9) SCHEMATIC DIAGRAM



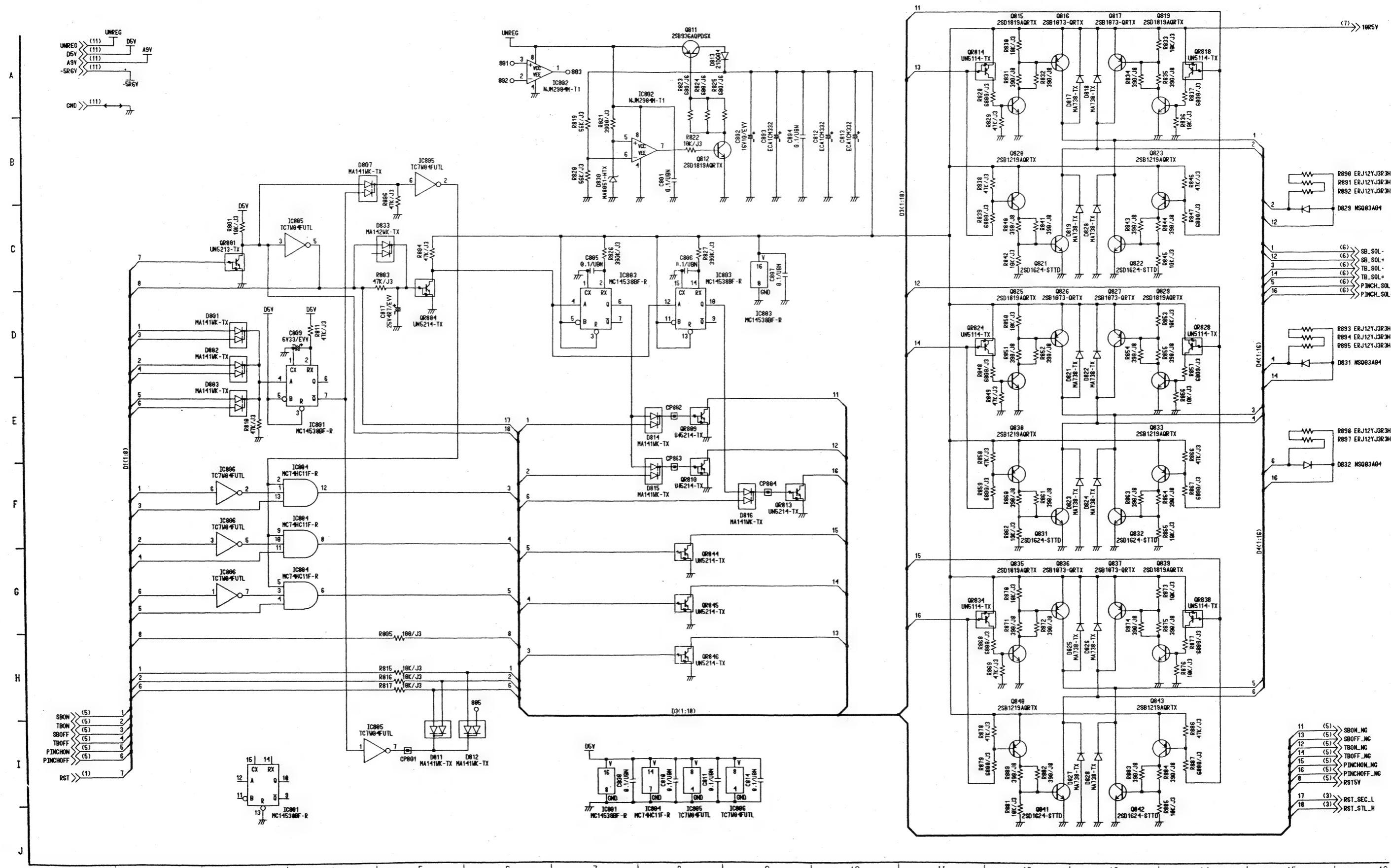
# SERVO (6/9) SCHEMATIC DIAGRAM



## SERVO (7/9) SCHEMATIC DIAGRAM



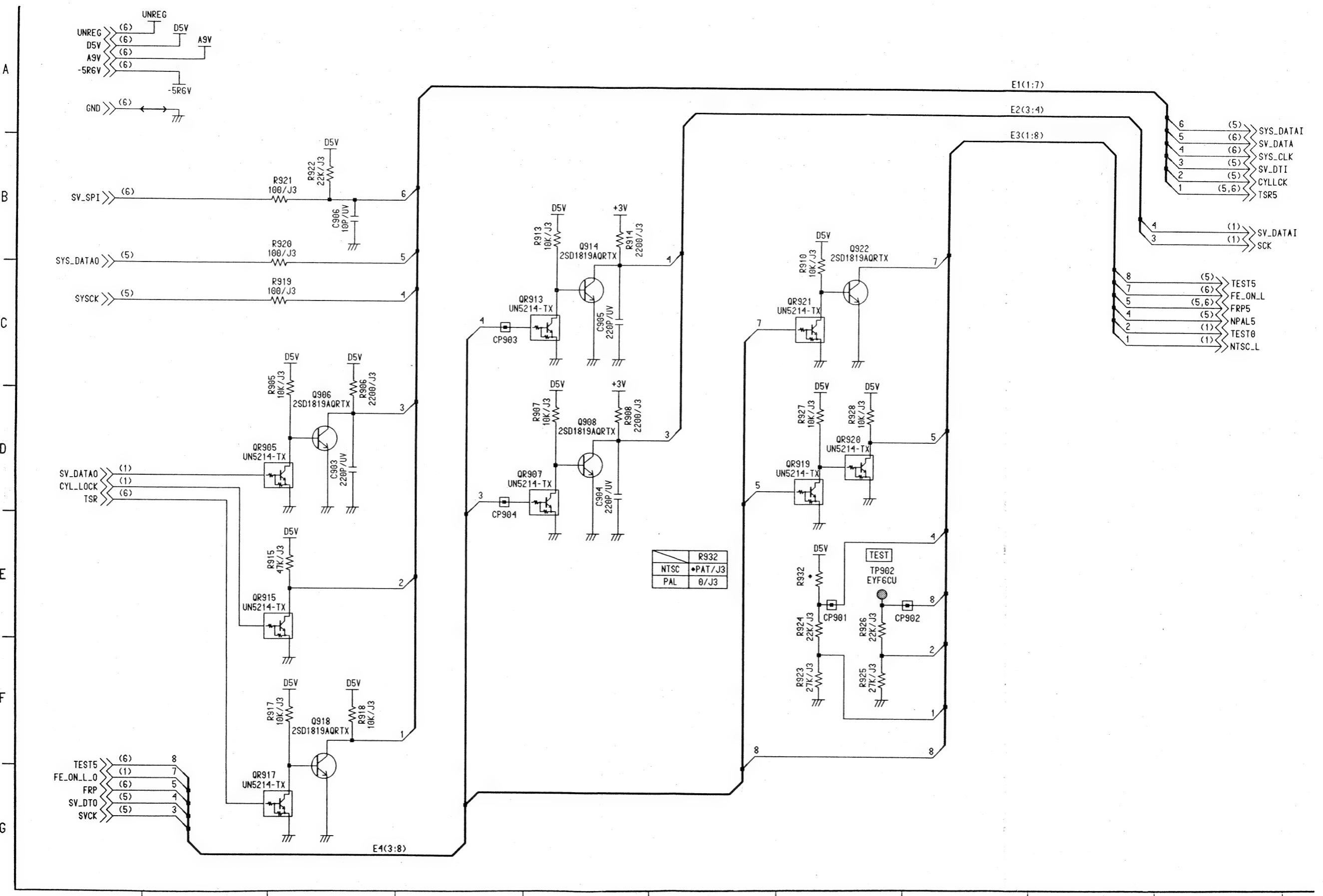
## **SERVO (8/9) SCHEMATIC DIAGRAM**



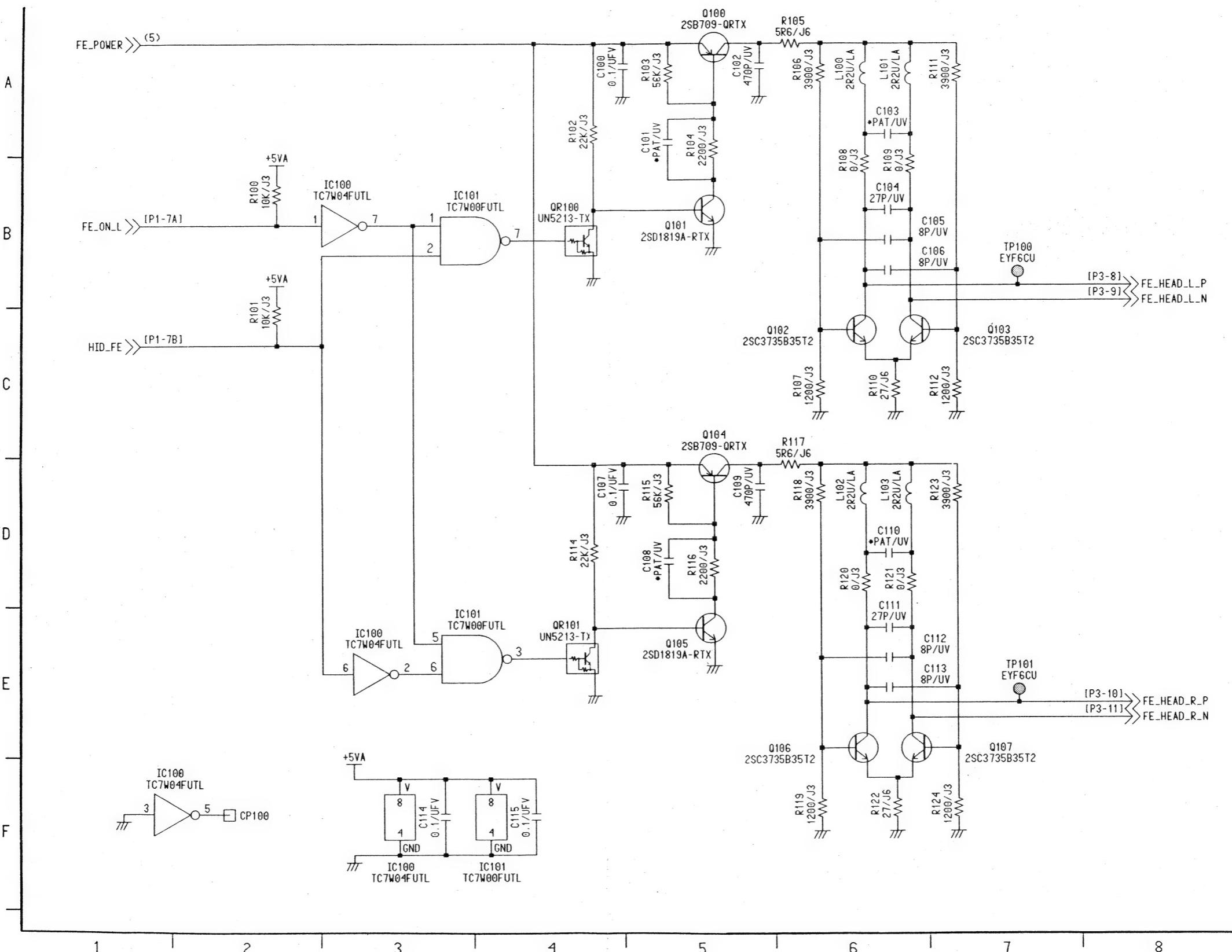
**REVERSE SIDE**

SERVO 7/9

## SERVO (9/9) SCHEMATIC DIAGRAM

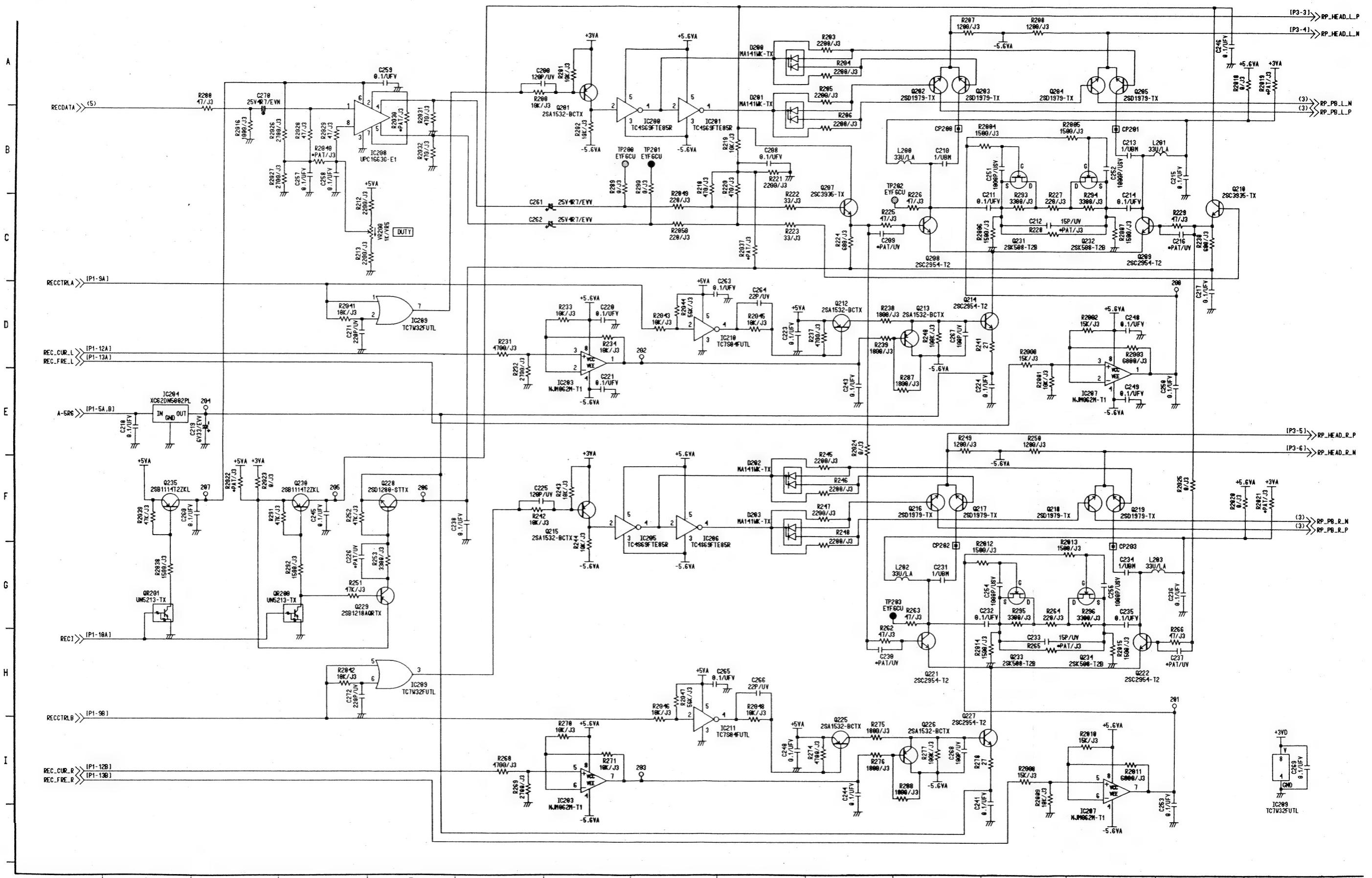


## RF (1/5) SCHEMATIC DIAGRAM

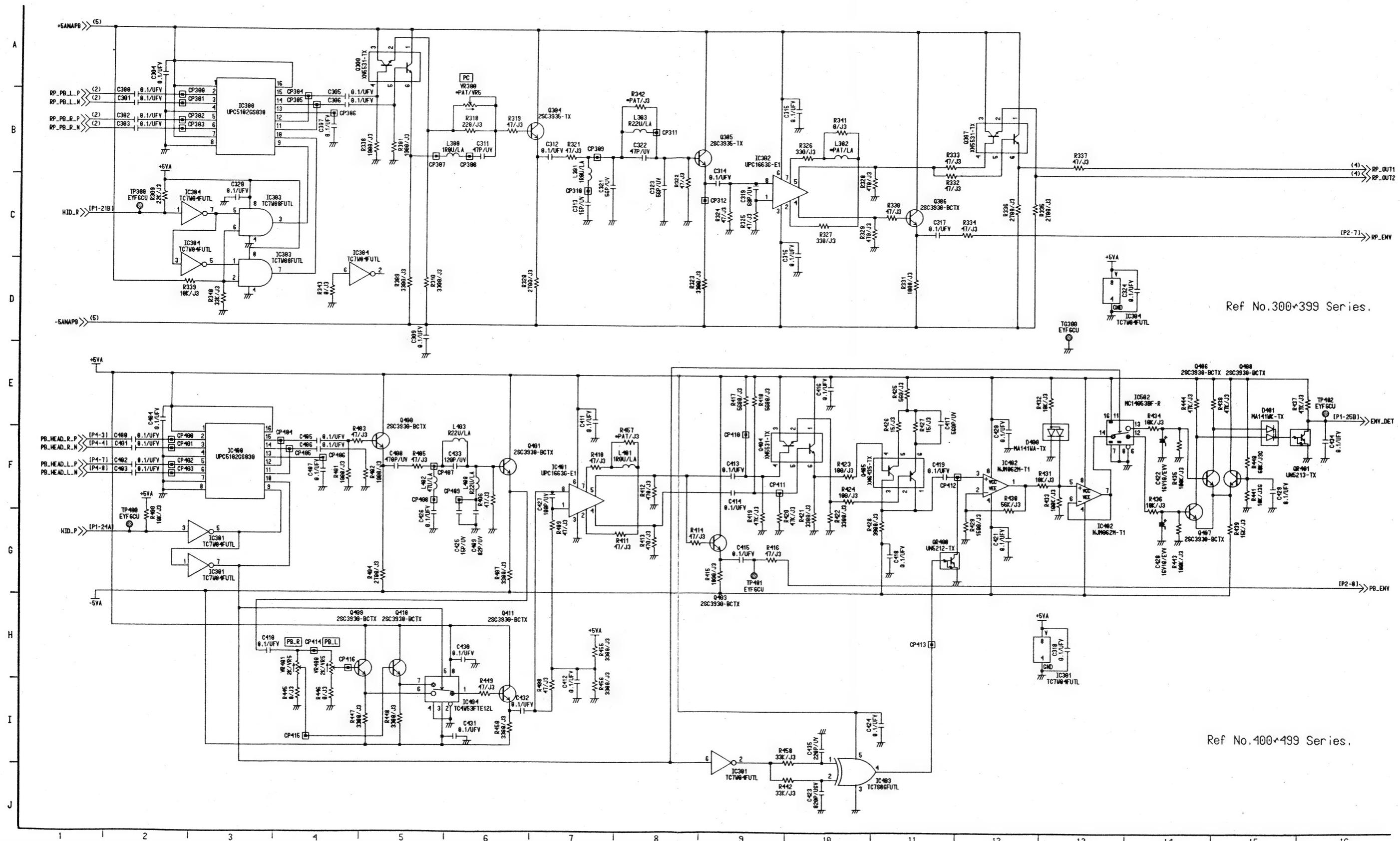


REVERSE SIDE  
SERVO 9/9

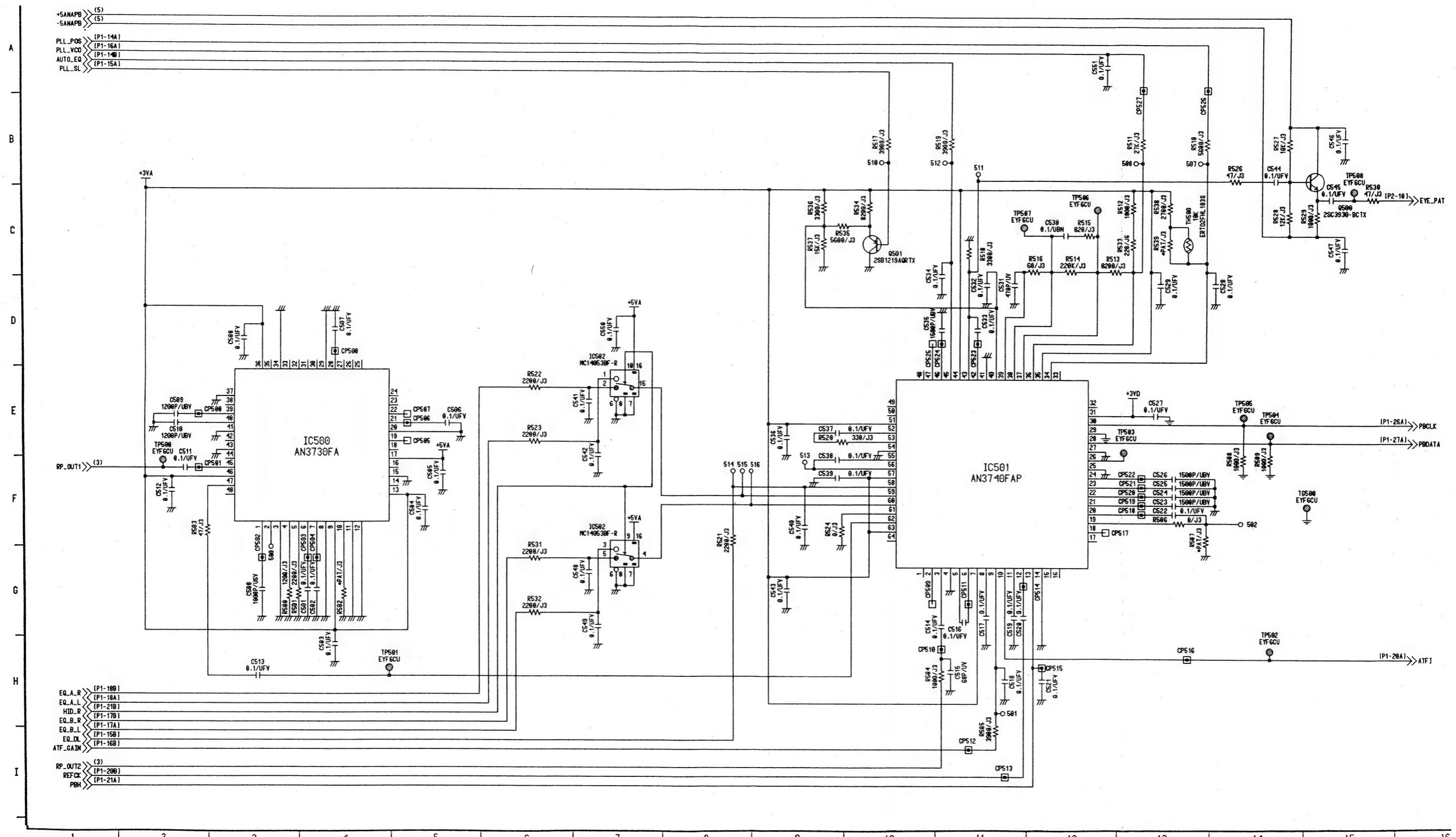
## **RF (2/5) SCHEMATIC DIAGRAM**



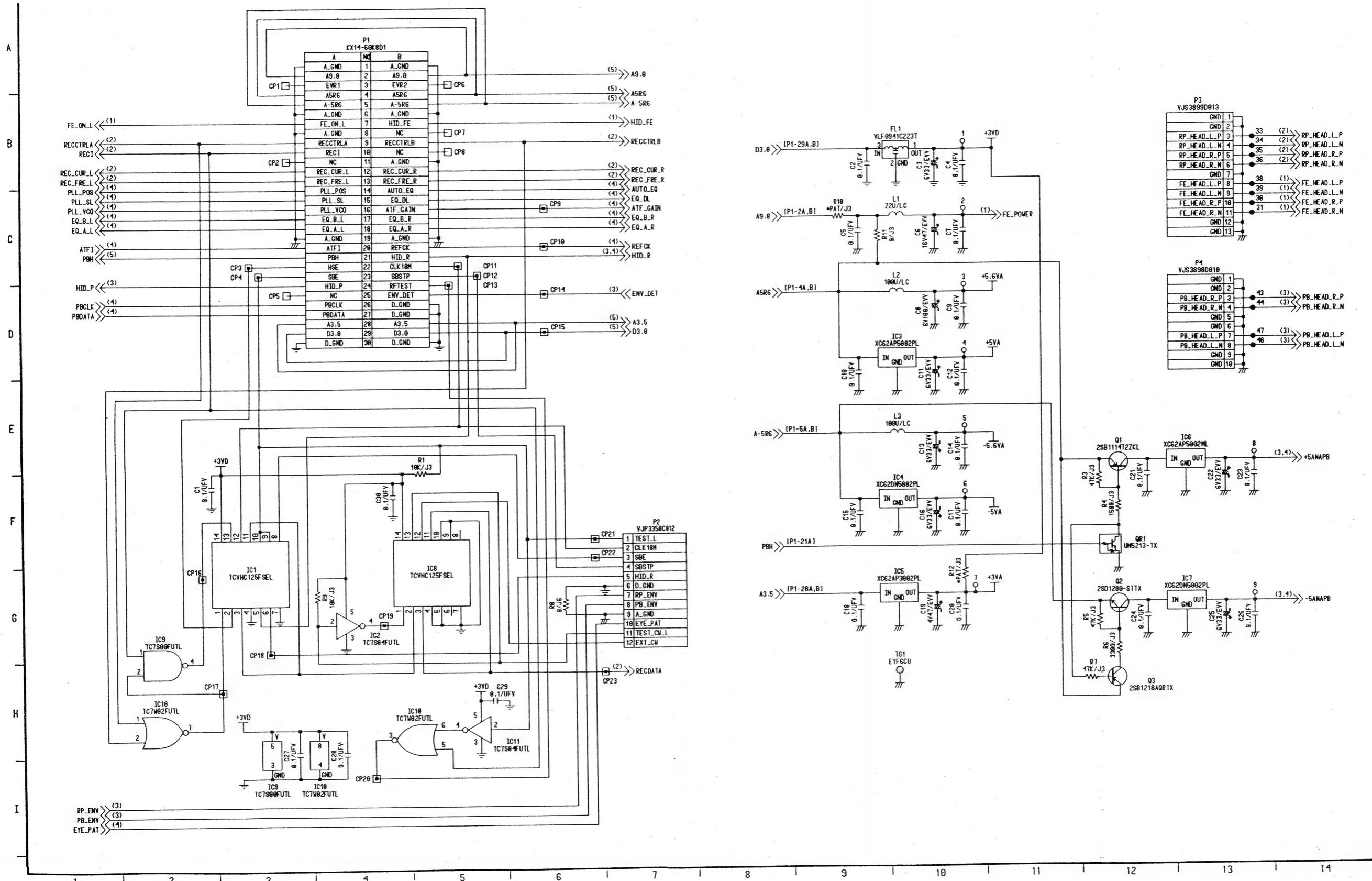
## RF (3/5) SCHEMATIC DIAGRAM



## **RF (4/5) SCHEMATIC DIAGRAM**

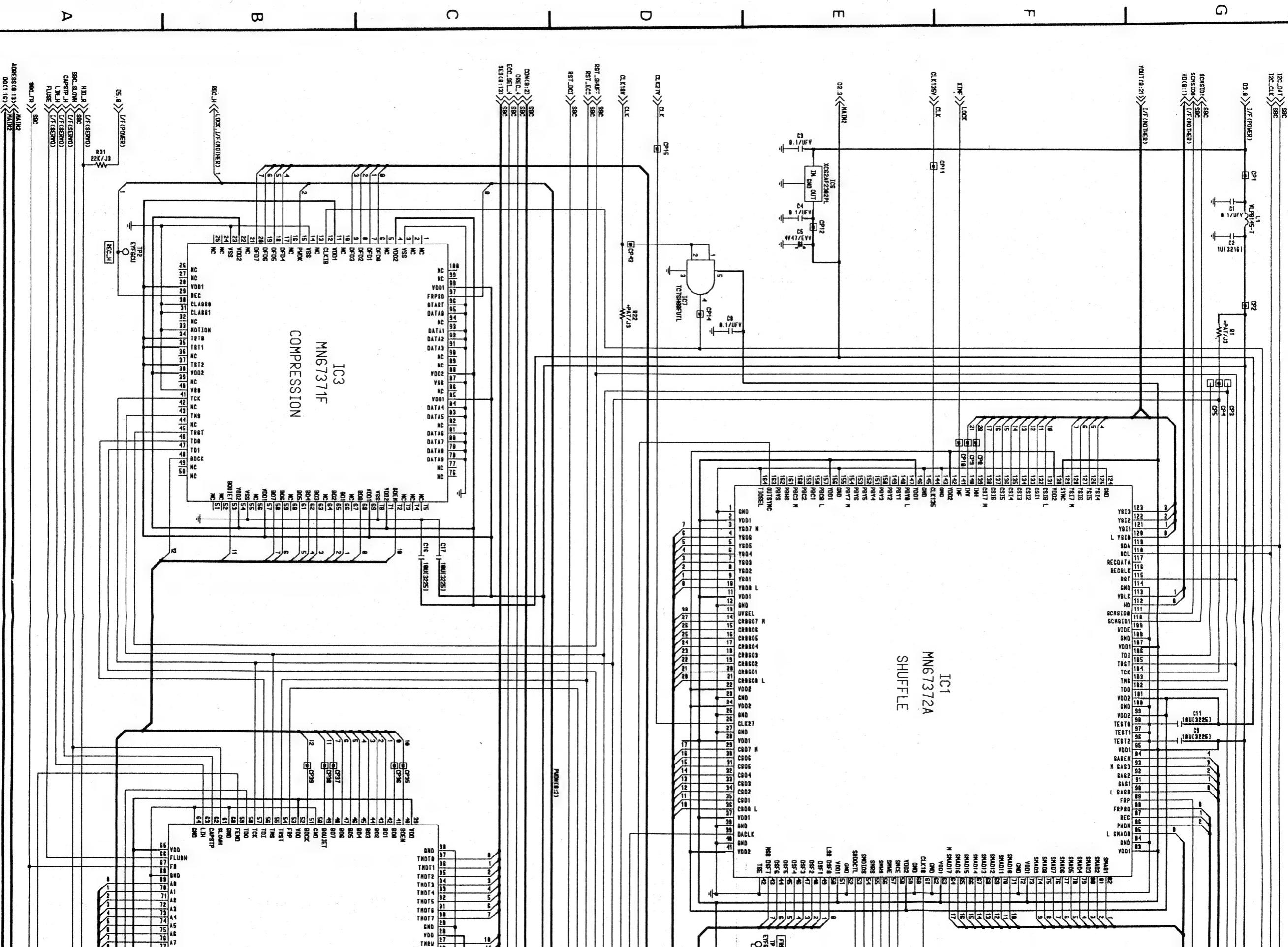


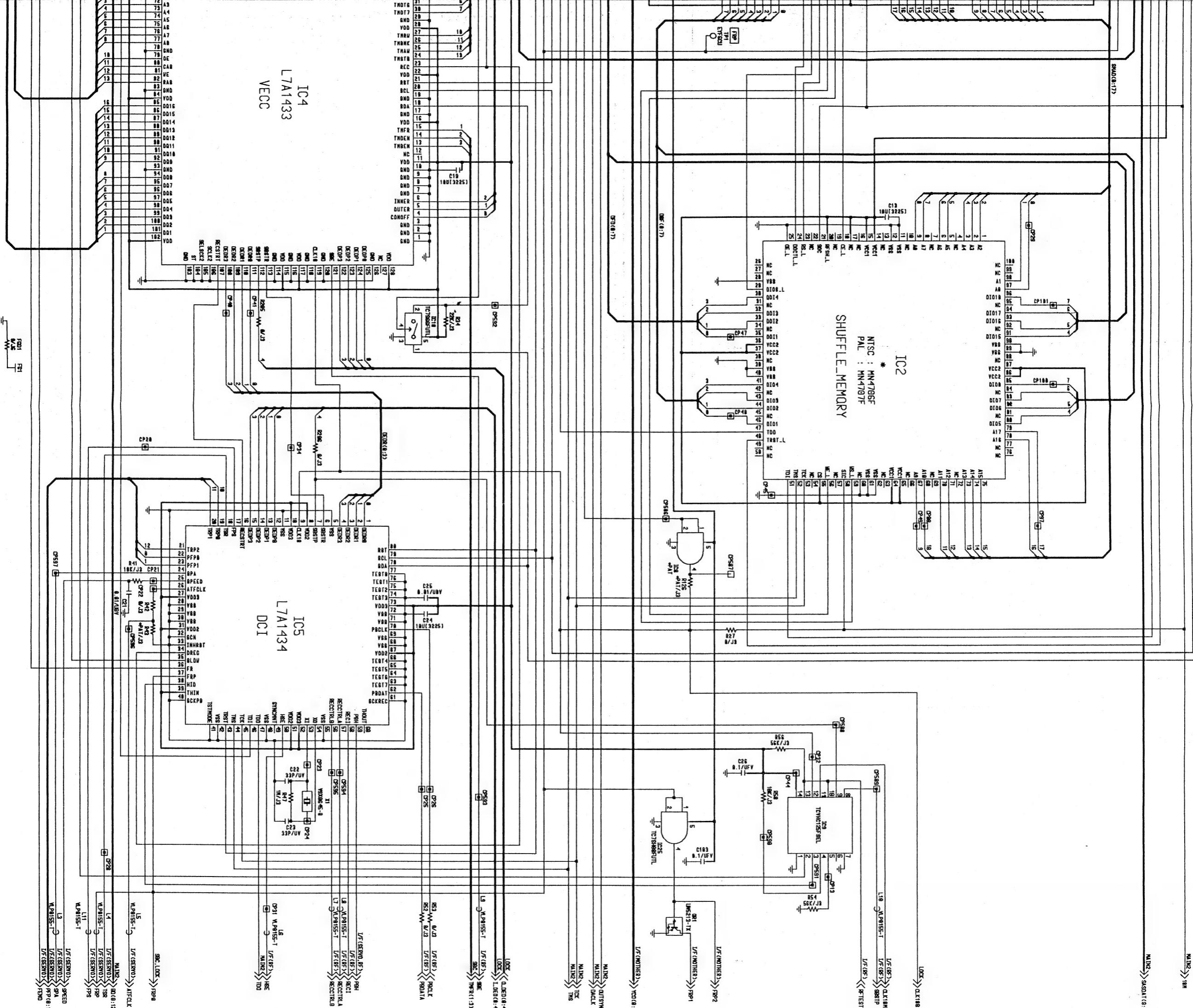
## RF (5/5) SCHEMATIC DIAGRAM



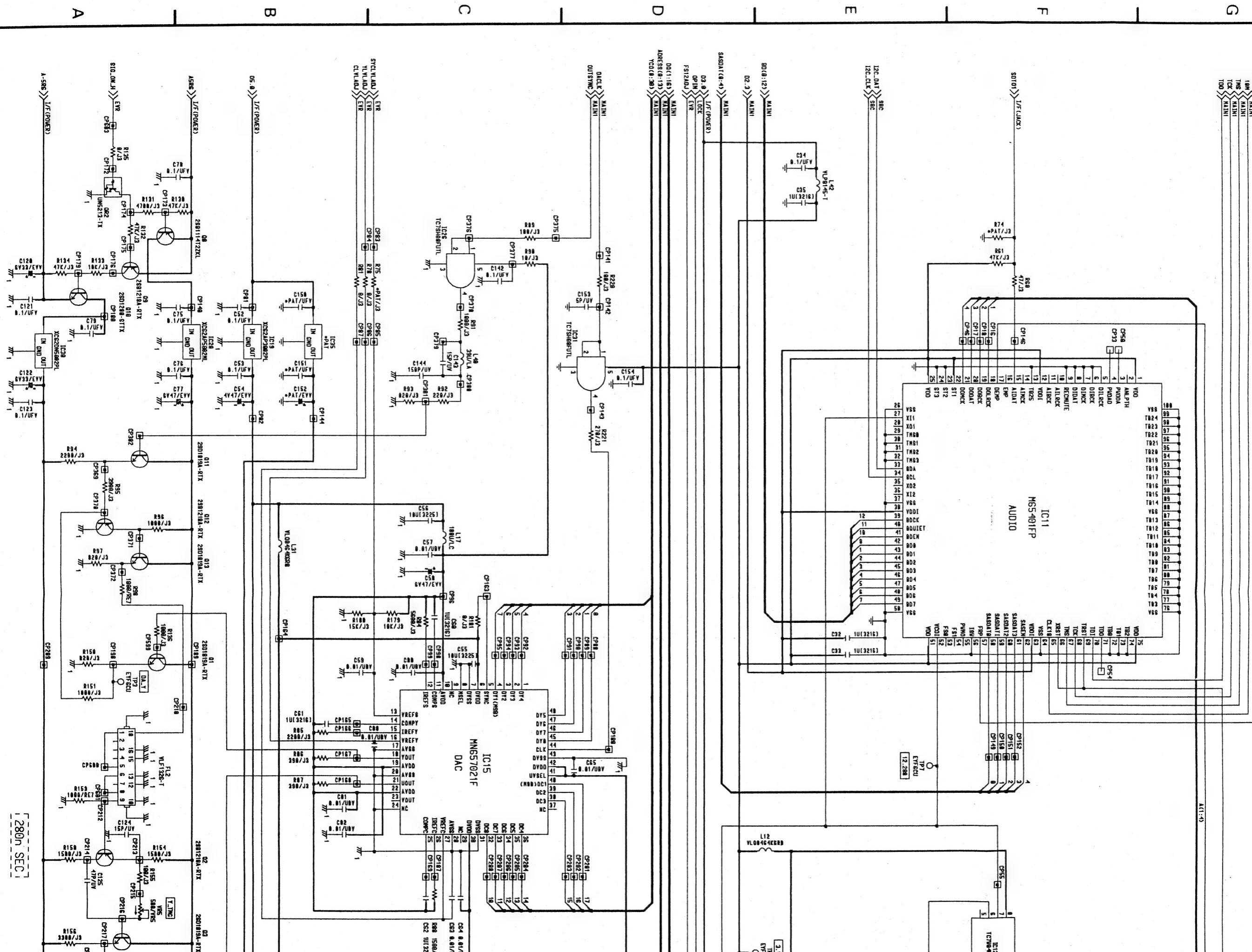
REVERSE SIDE

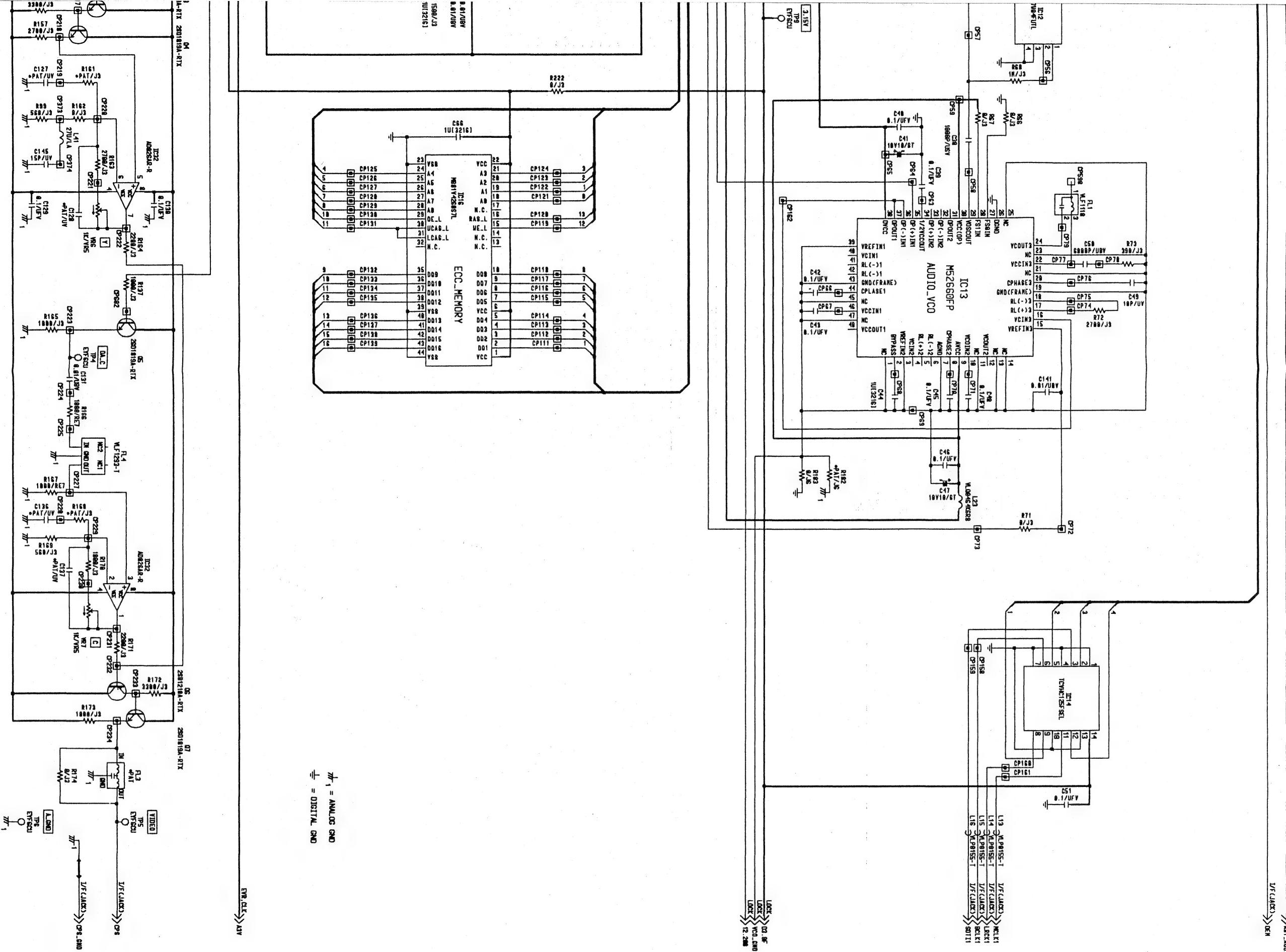
# VIDEO MAIN (1/7) MAIN 1 SCHEMATIC DIAGRAM



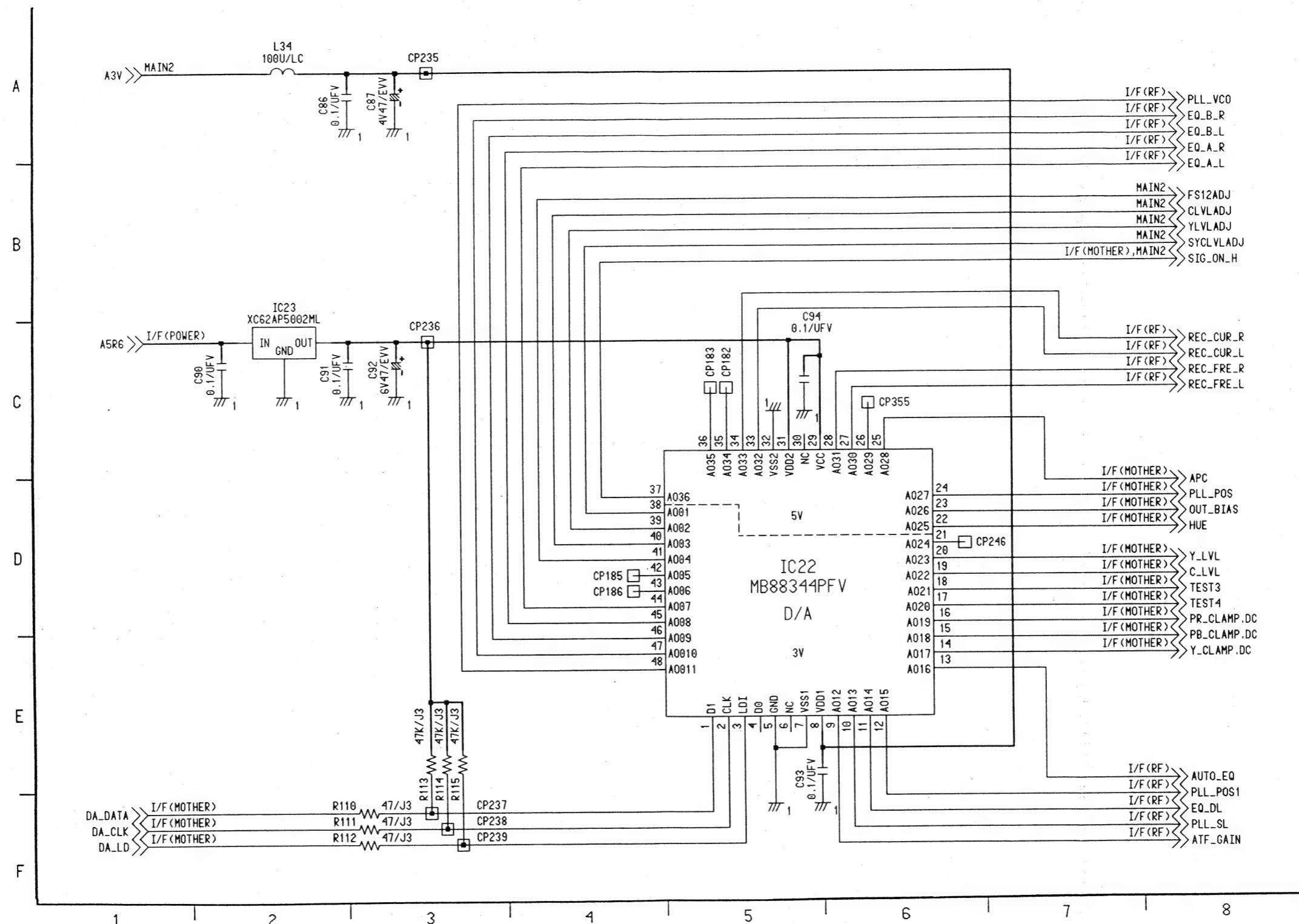


## VIDEO MAIN (2/7) MAIN 2 SCHEMATIC DIAGRAM

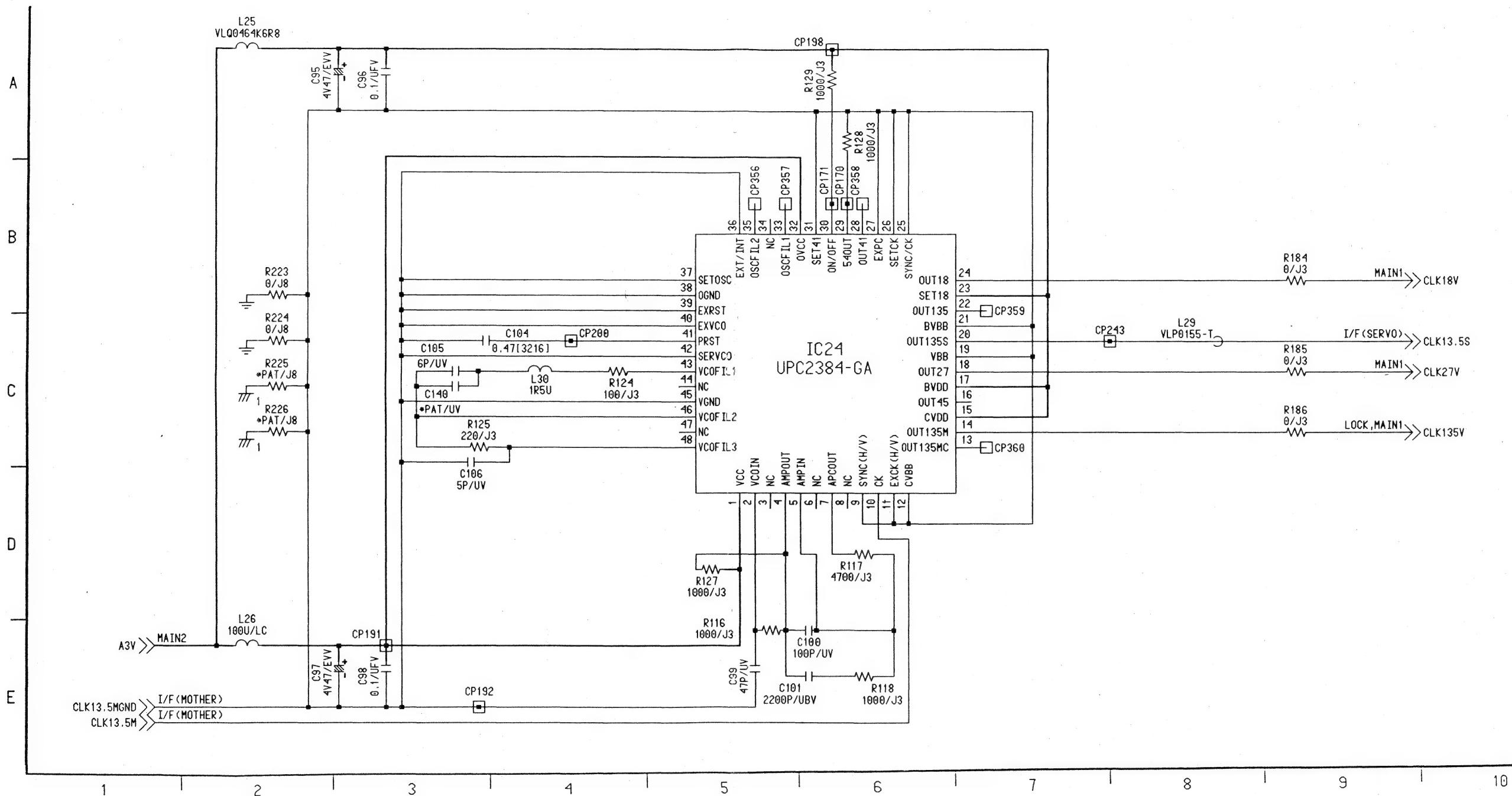




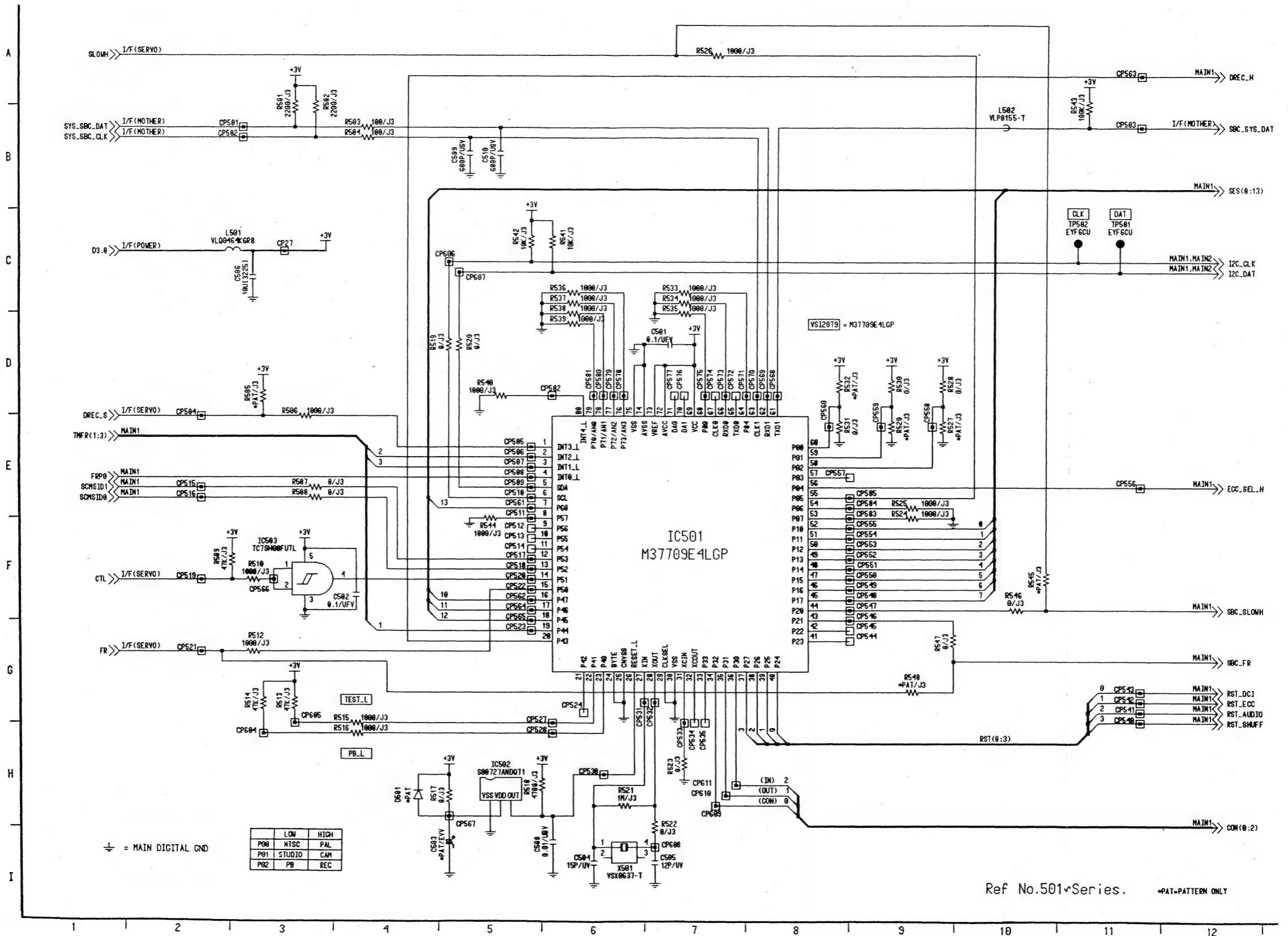
## VIDEO MAIN (3/7) EVR SCHEMATIC DIAGRAM



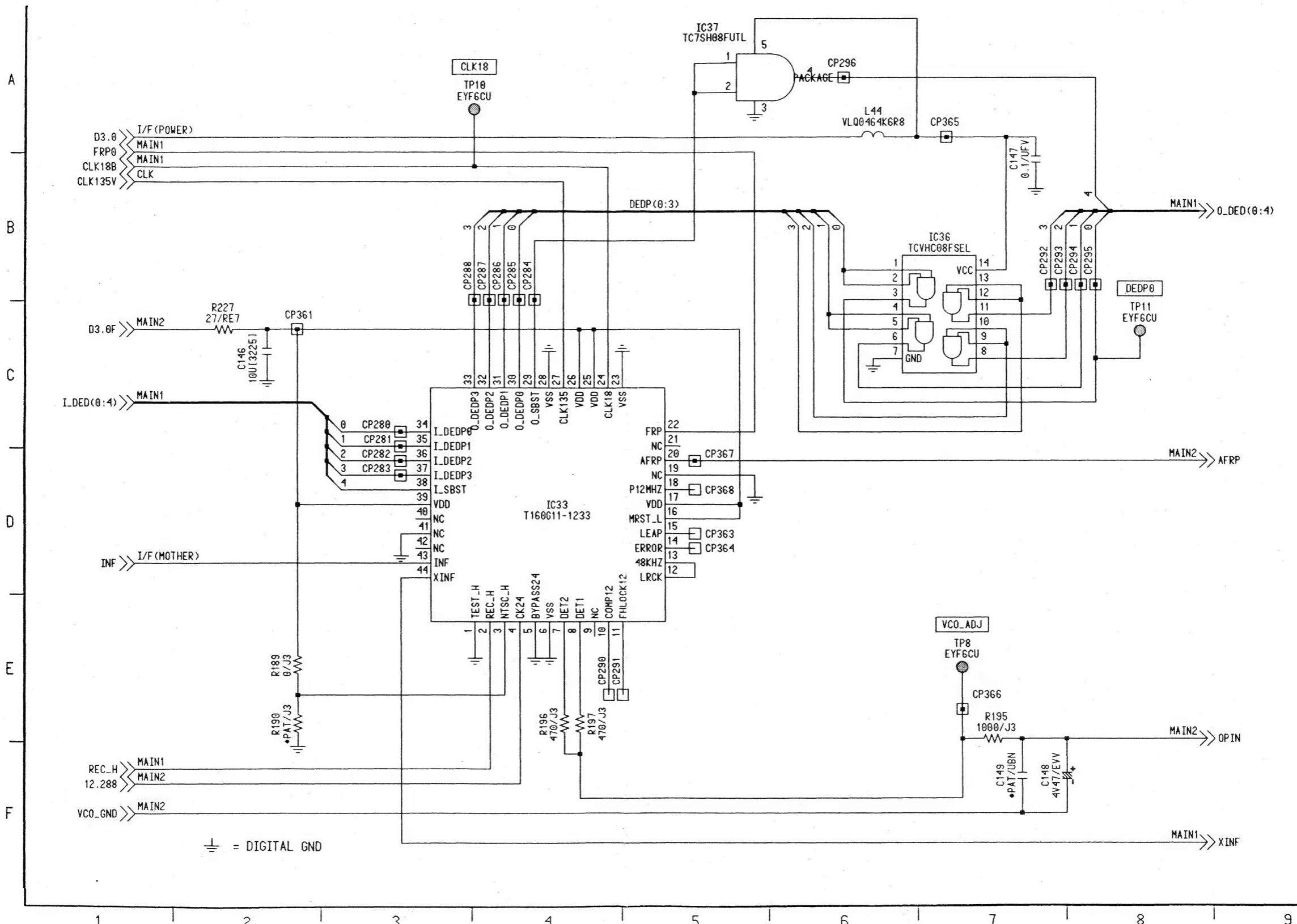
# VIDEO MAIN (4/7) SYNC CLK SCHEMATIC DIAGRAM



**VIDEO MAIN (5/7) SBC SCHEMATIC DIAGRAM**

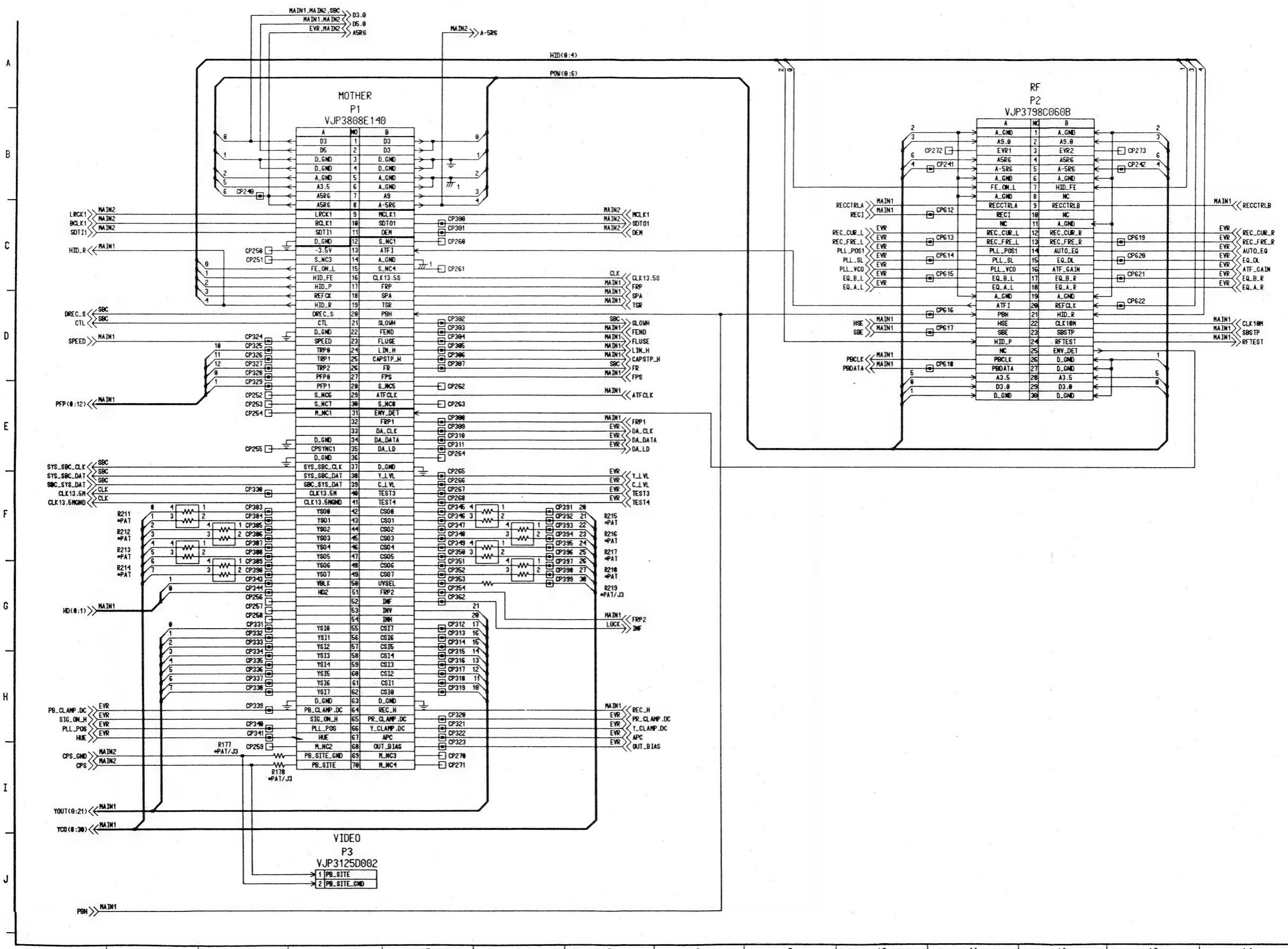


## **VIDEO MAIN (6/7) LOCK SCHEMATIC DIAGRAM**

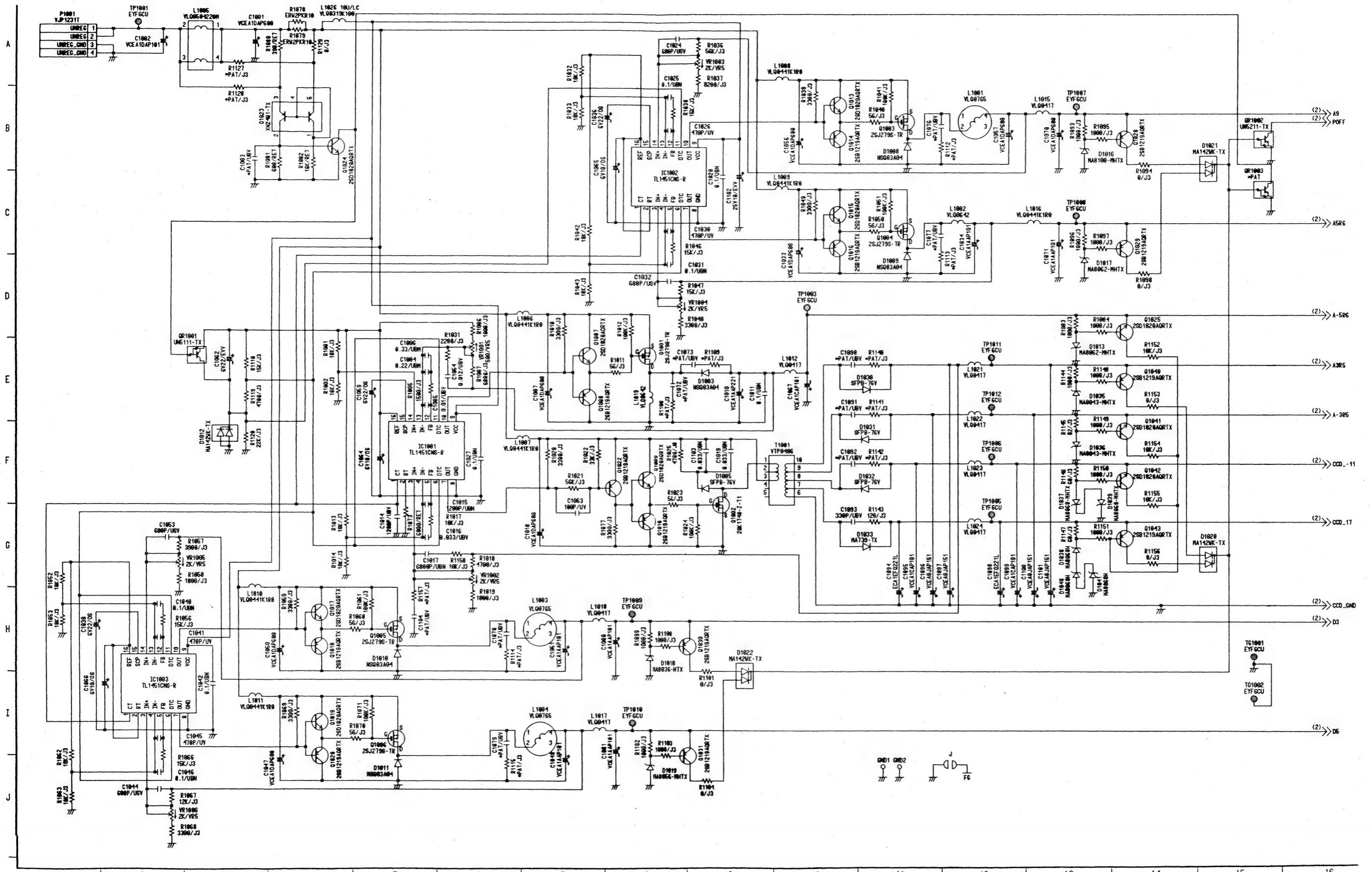


**REVERSE SIDE**  
**VIDEO MAIN 5/7**

## **VIDEO MAIN (7/7) I/F SCHEMATIC DIAGRAM**

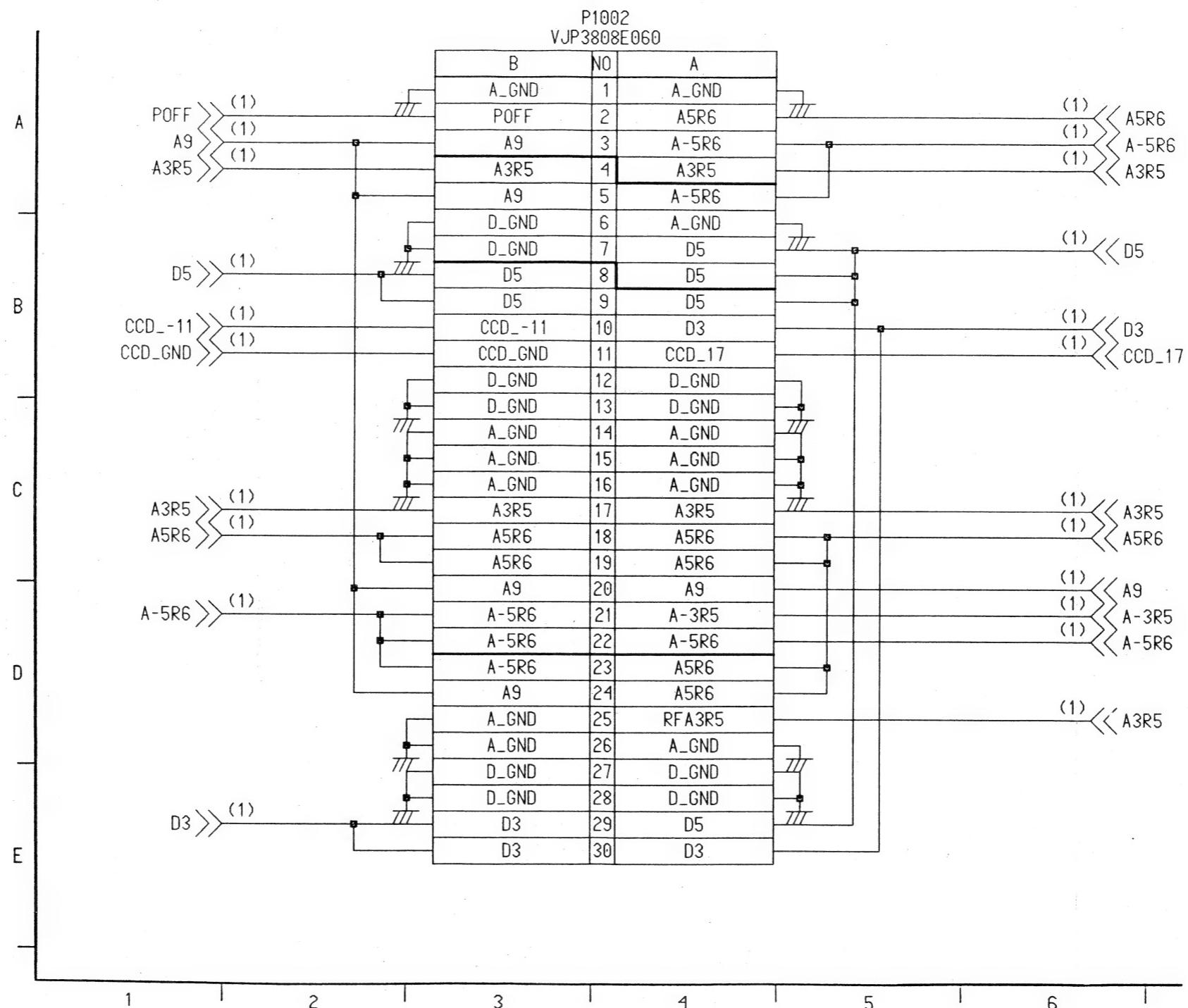


# POWER (1/2) SCHEMATIC DIAGRAM

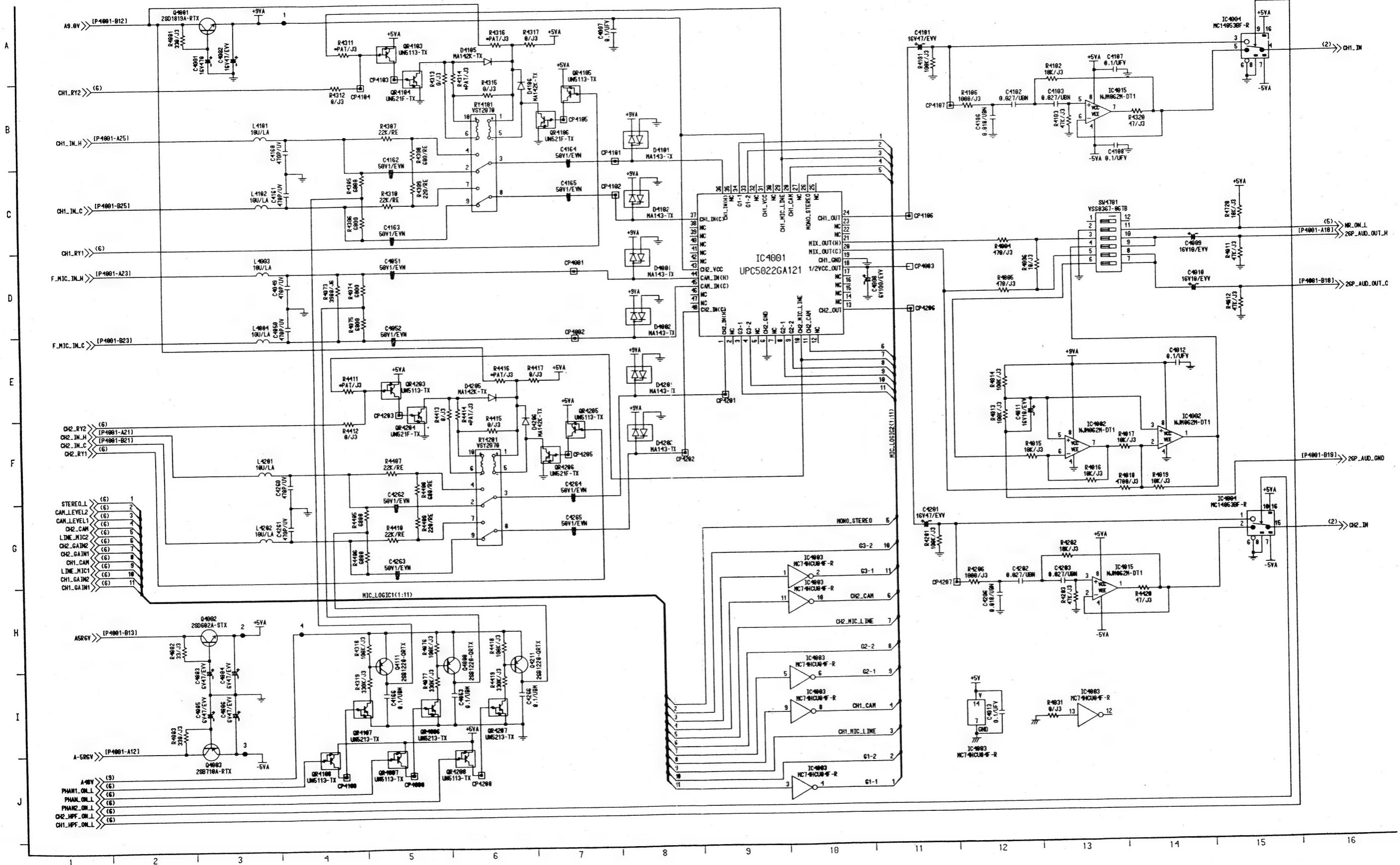


REVERSE SIDE  
VIDEO MAIN 7/7

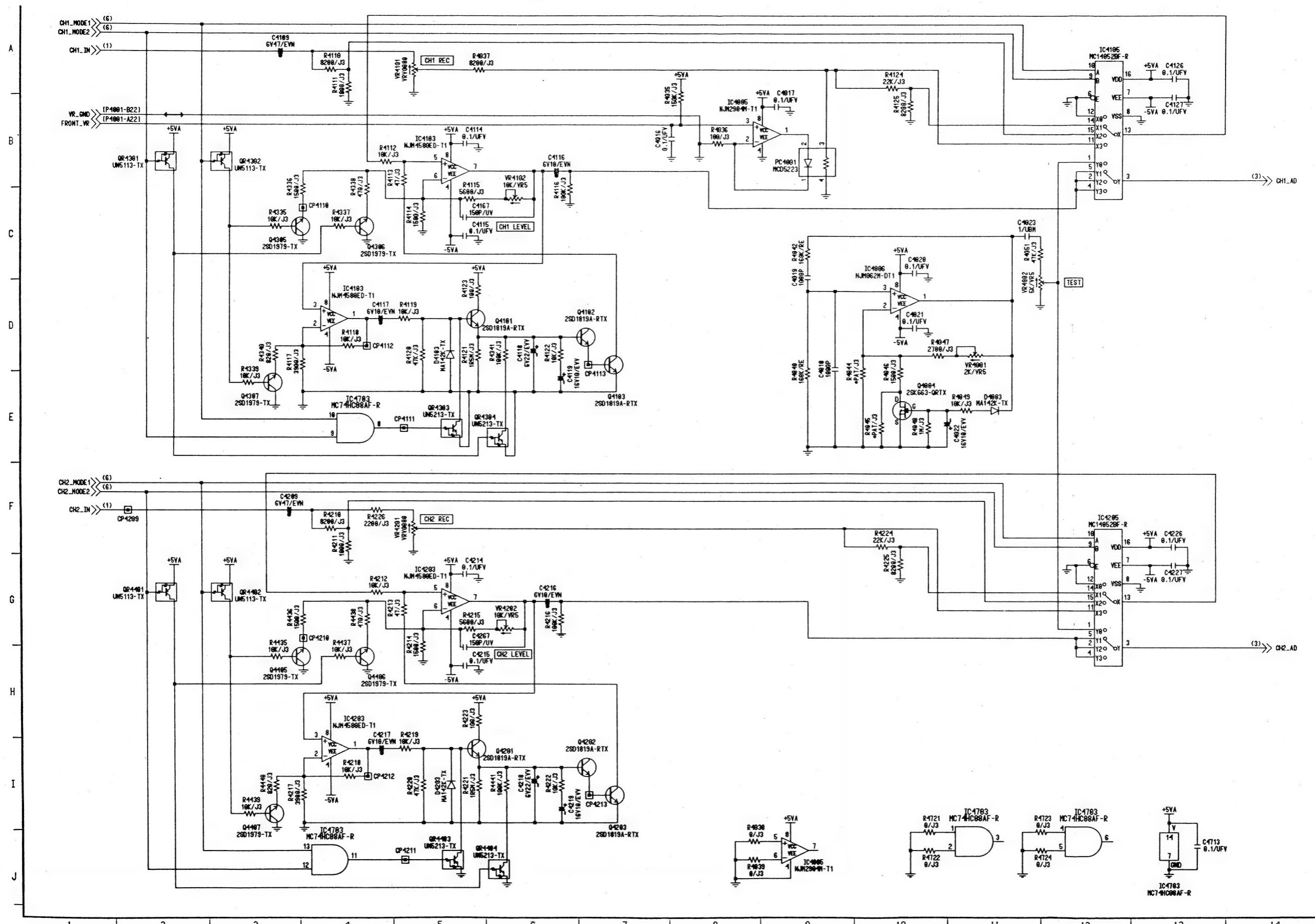
## POWER (2/2) SCHEMATIC DIAGRAM



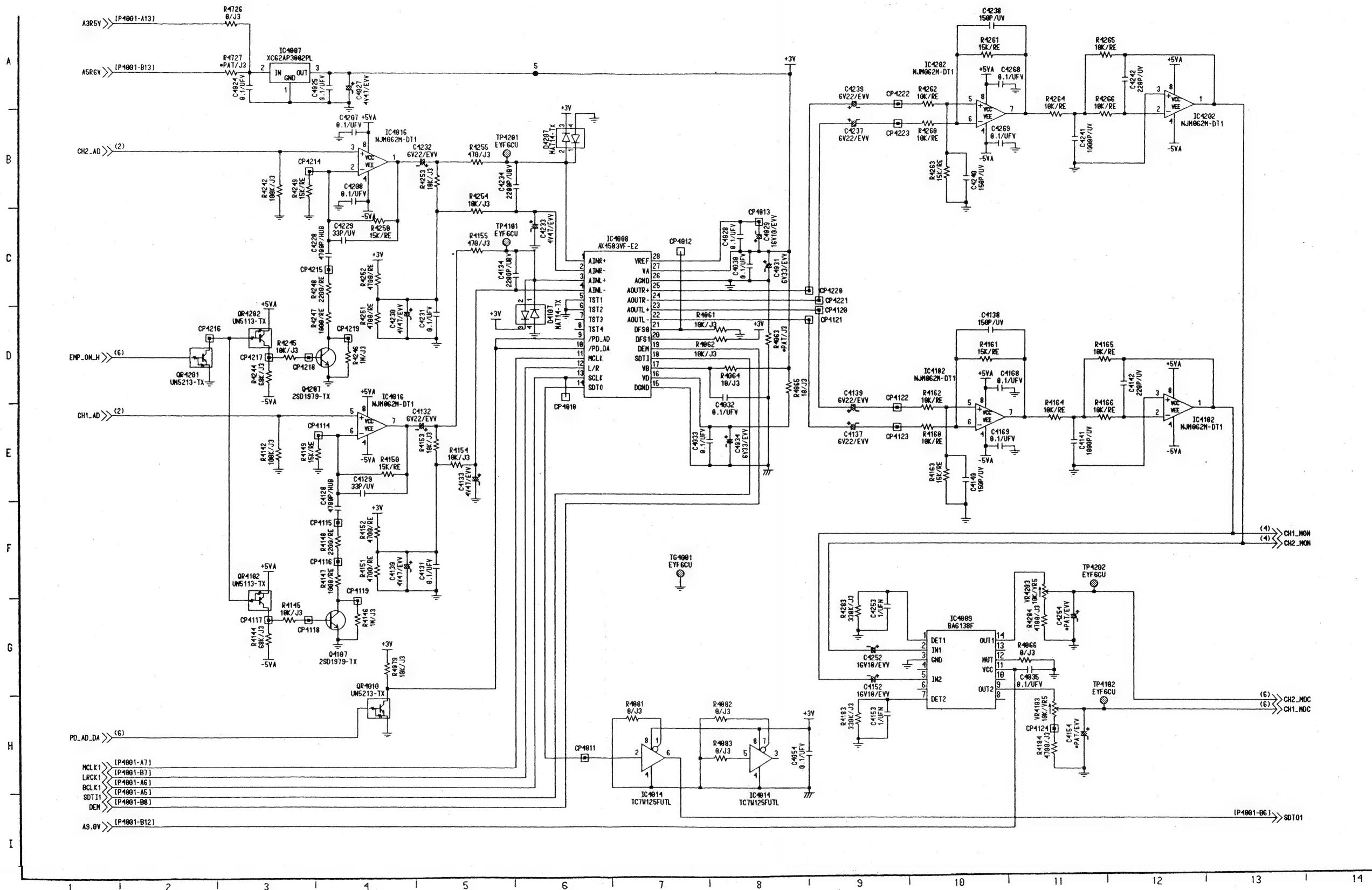
AUDIO LCD (1/9) AUDIO INPUT SCHEMATIC DIAGRAM



**AUDIO LCD (2/9) AUDIO AGC SCHEMATIC DIAGRAM**

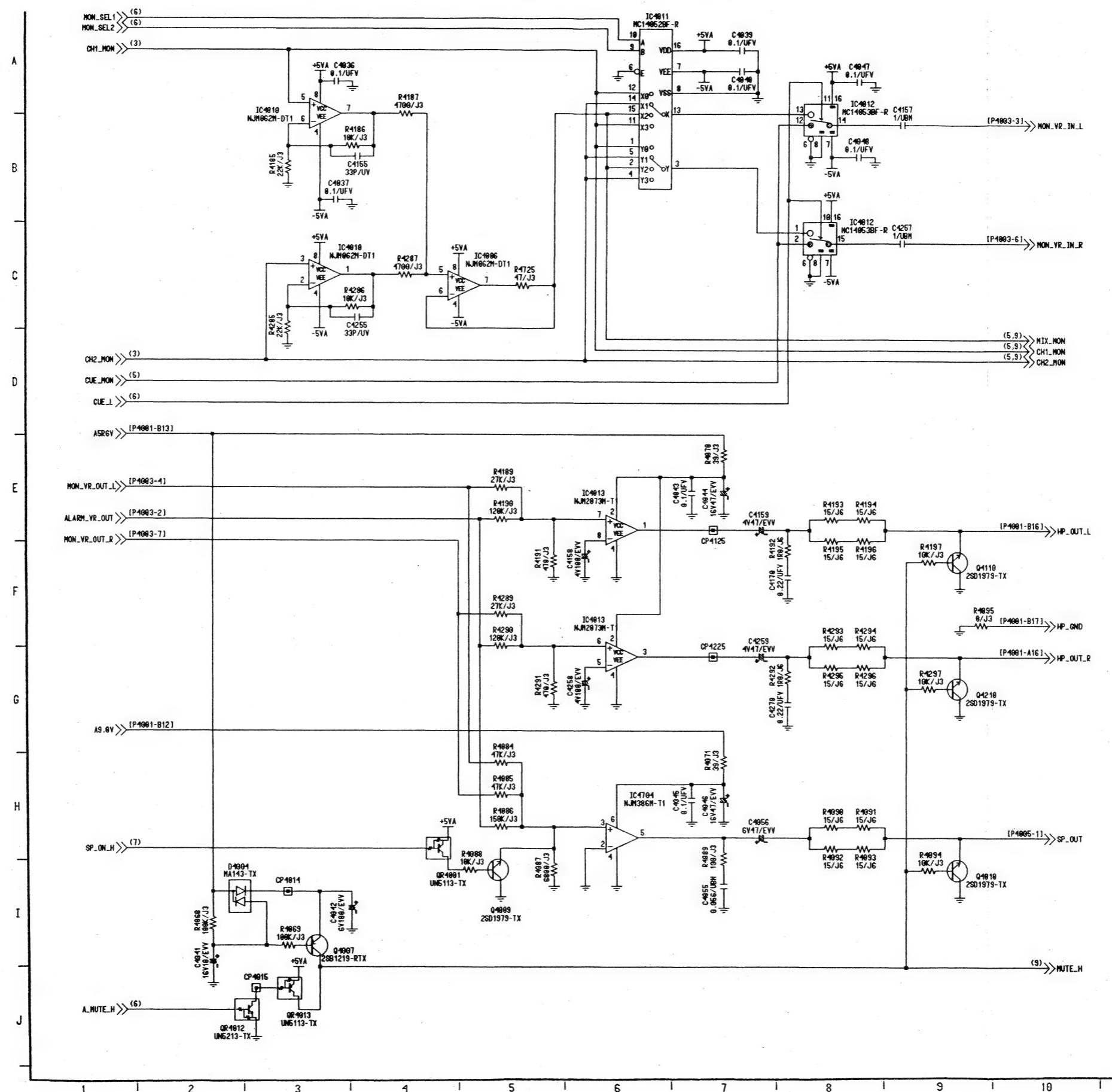


## AUDIO LCD (3/9) AUDIO A/D D/A SCHEMATIC DIAGRAM

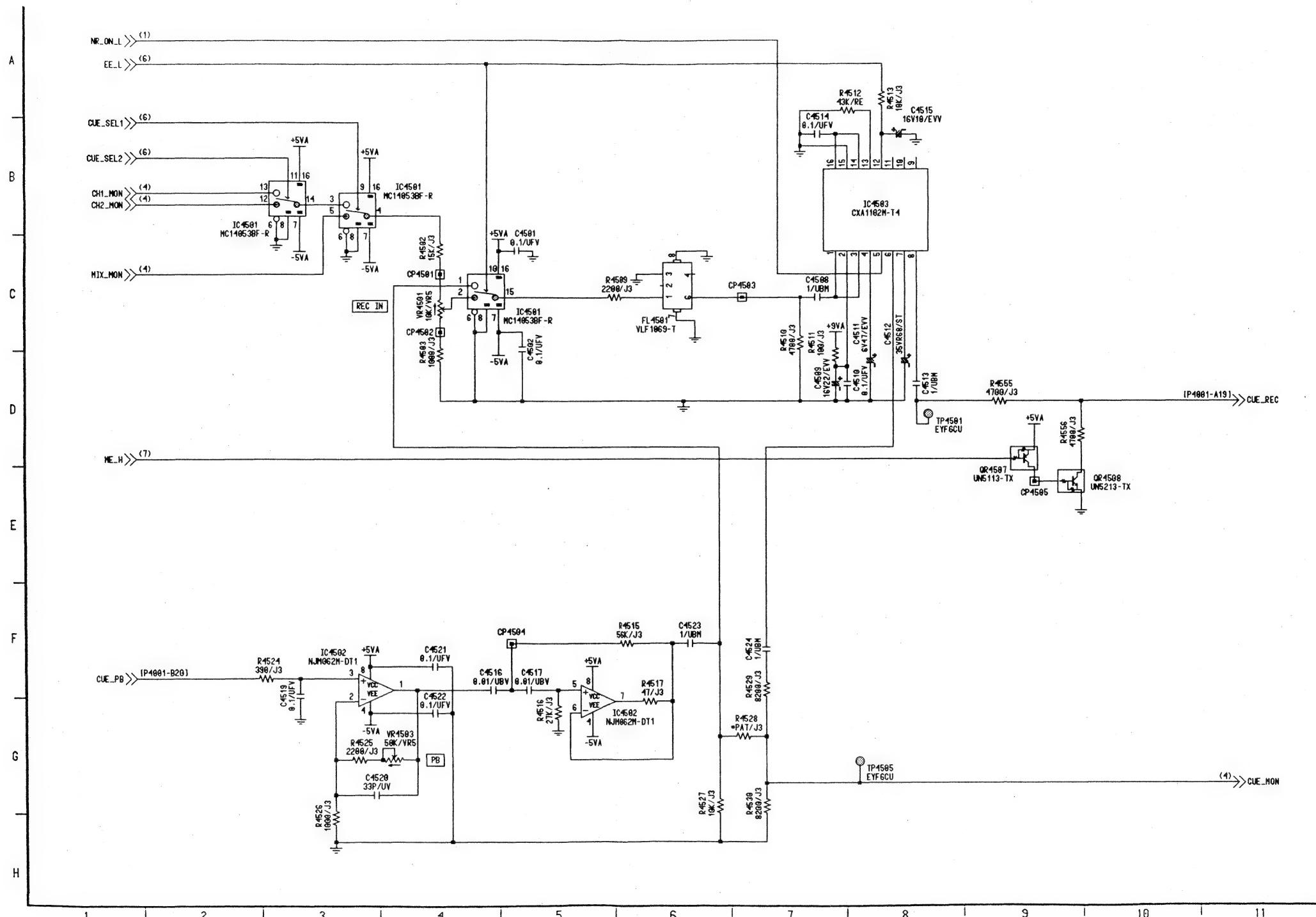


REVERSE SIDE

**AUDIO LCD (4/9) AUDIO MONITOR SCHEMATIC DIAGRAM**

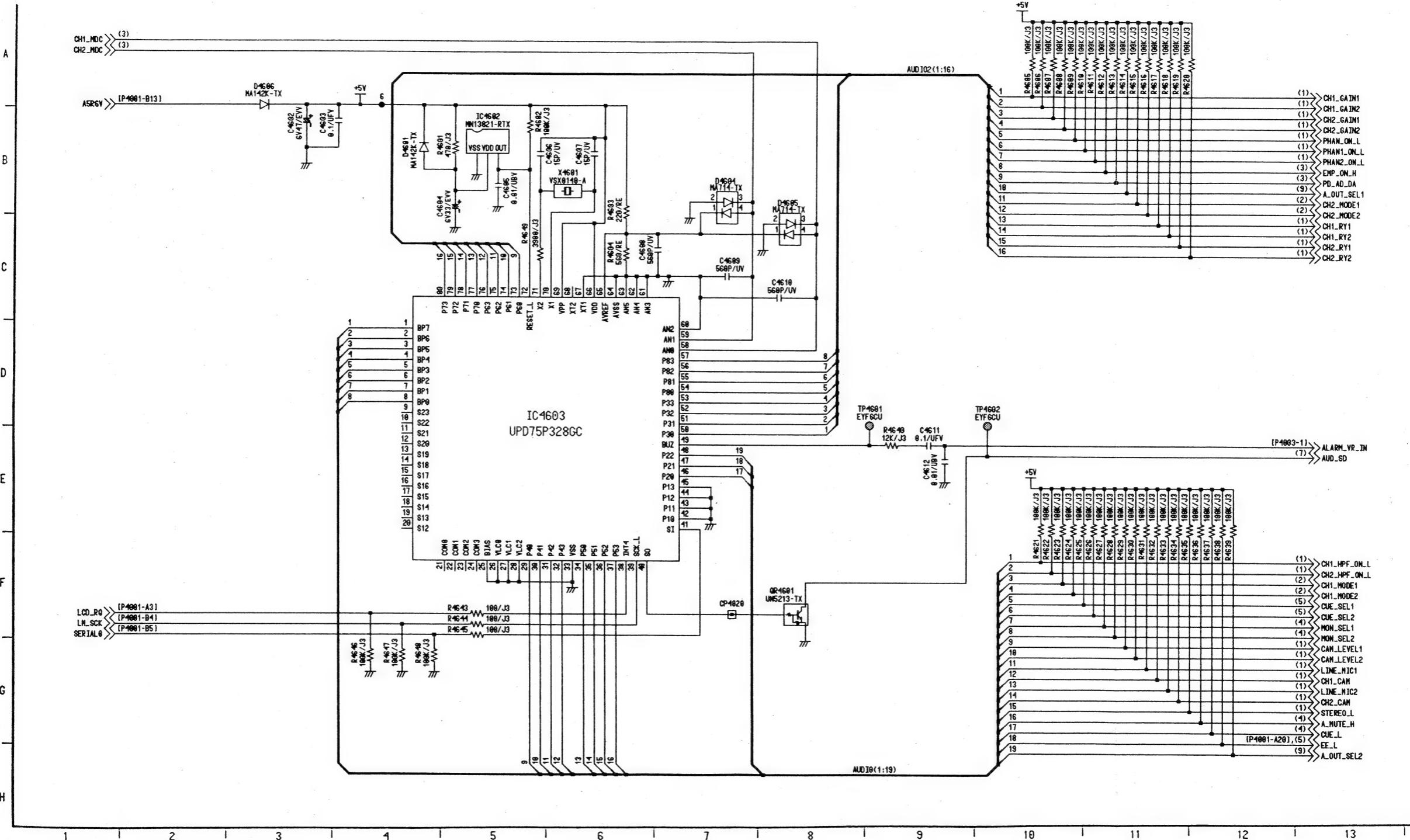


## AUDIO LCD (5/9) AUDIO CUE SCHEMATIC DIAGRAM

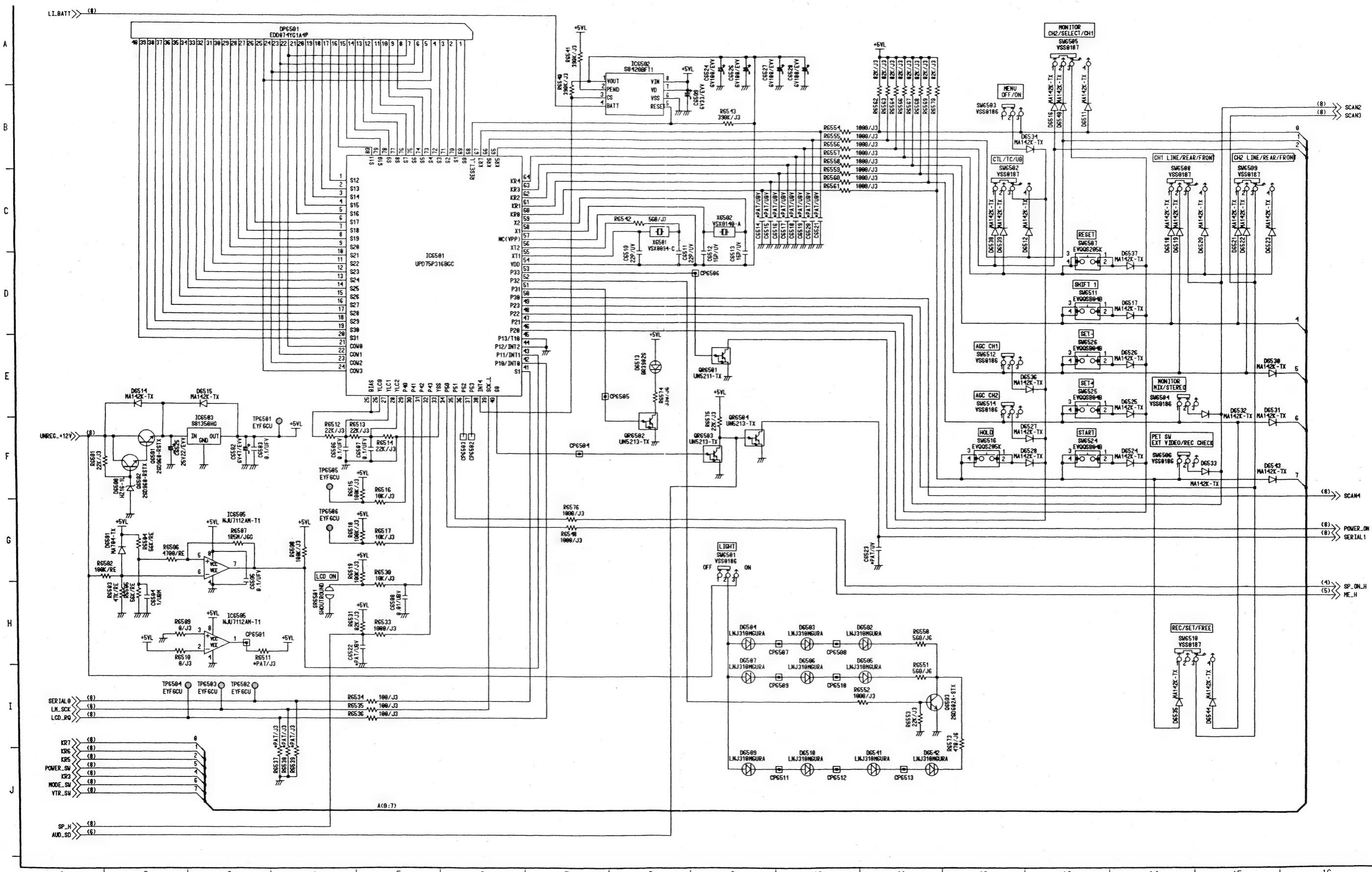


REVERSE SIDE

## AUDIO LCD (6/9) AUDIO CONTROL SCHEMATIC DIAGRAM

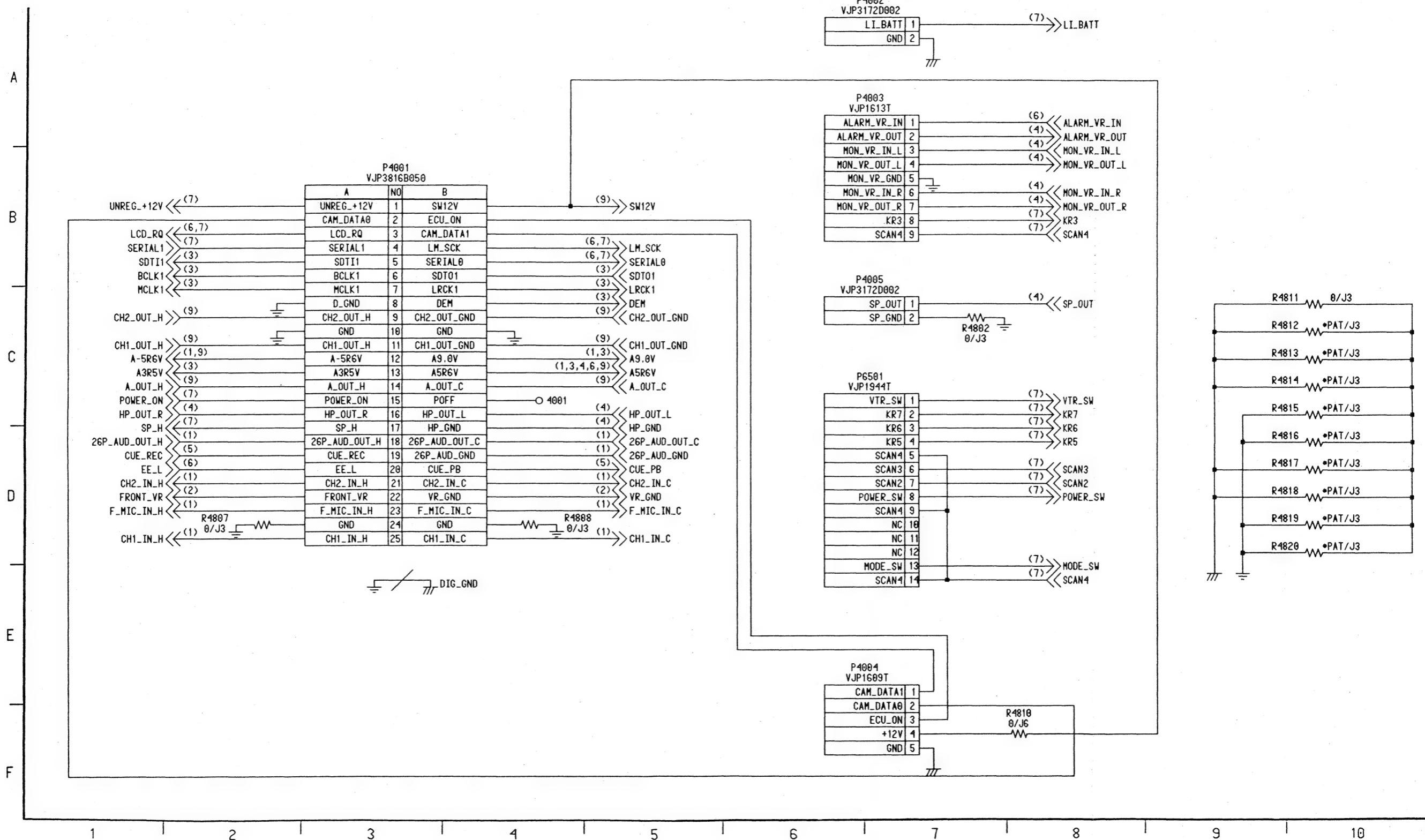


# AUDIO LCD (7/9) AUDIO LCD SCHEMATIC DIAGRAM

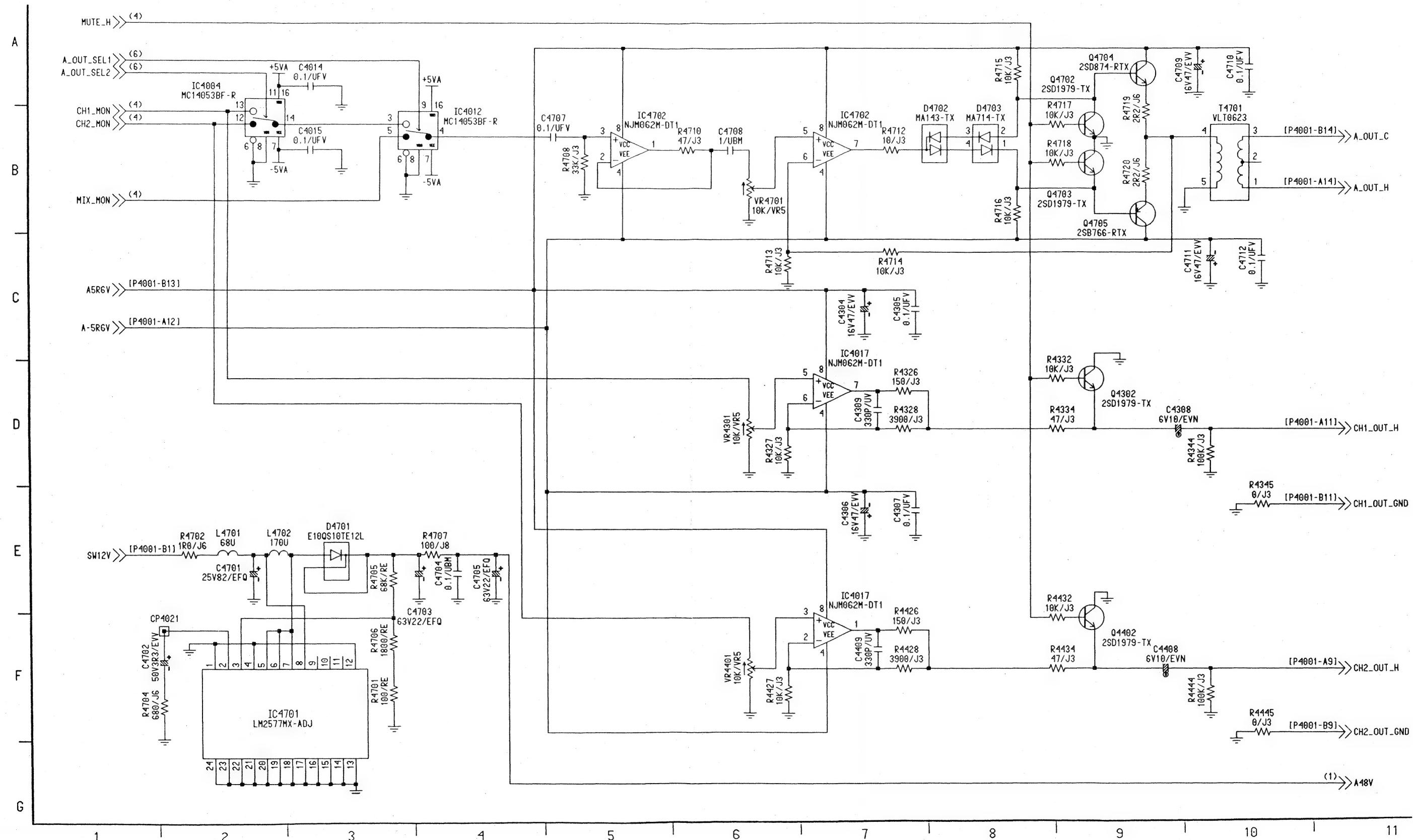


REVERSE SIDE

## AUDIO LCD (8/9) AUDIO LCD I/F SCHEMATIC DIAGRAM

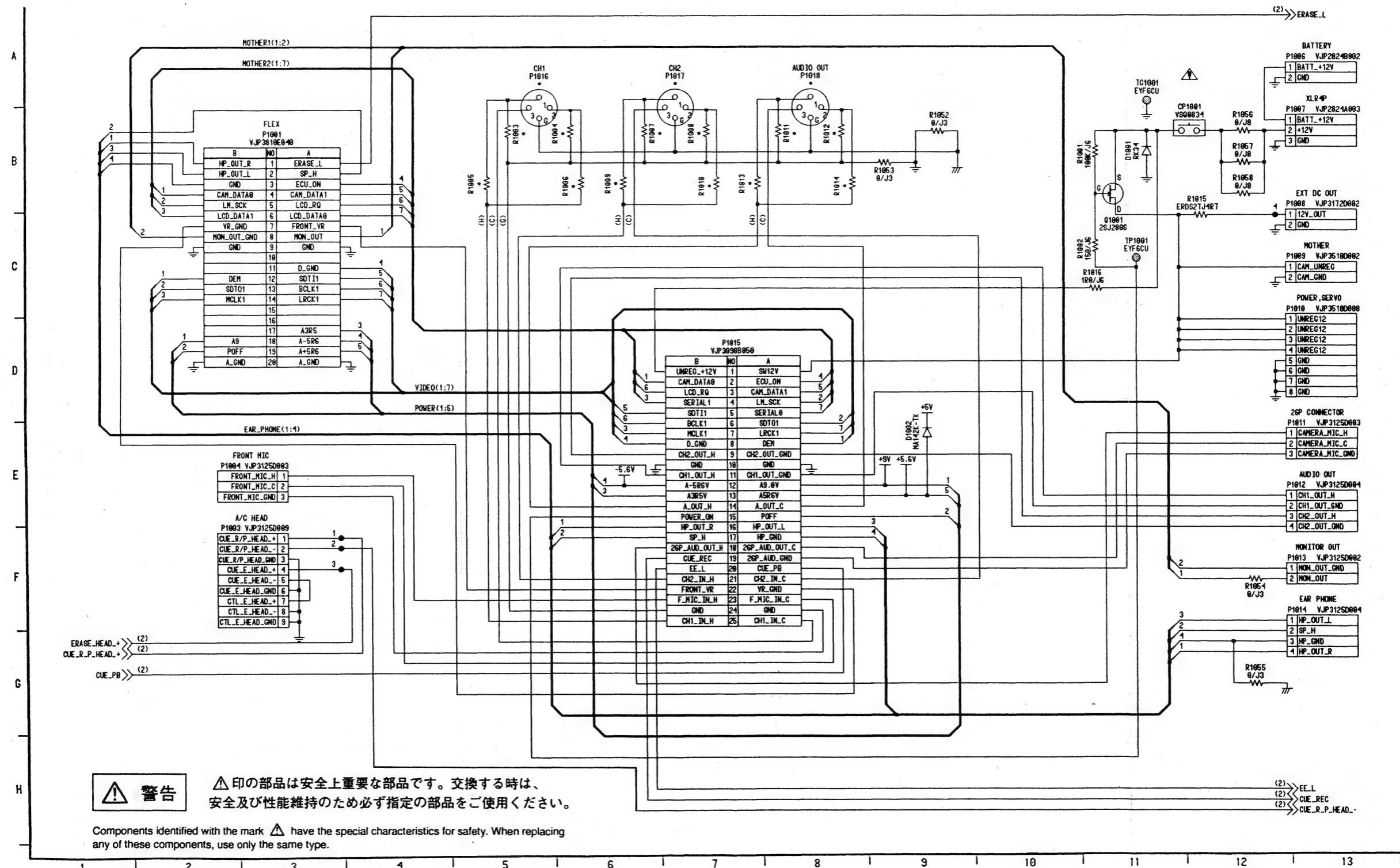


## AUDIO LCD (9/9) AUDIO OUT SCHEMATIC DIAGRAM

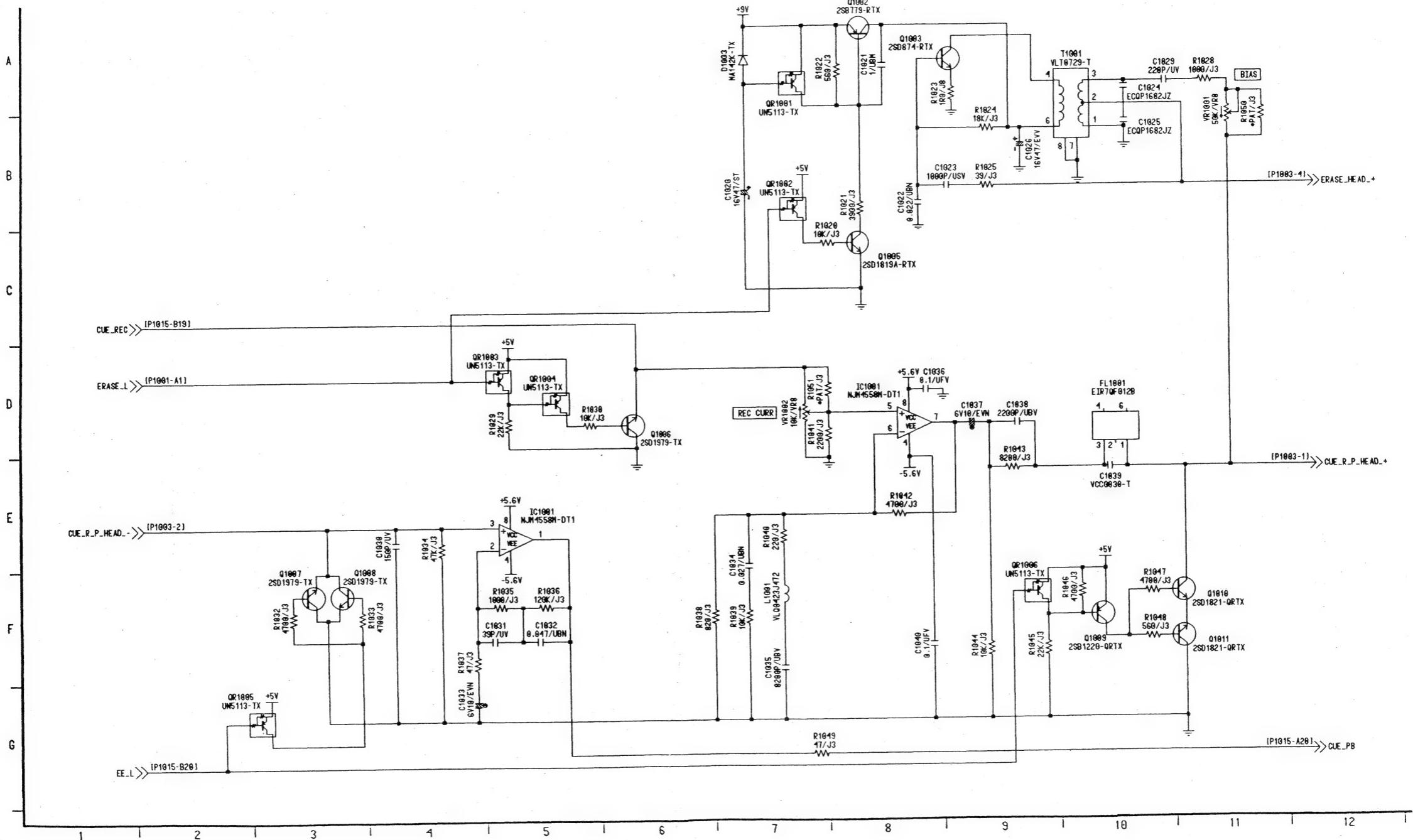


REVERSE SIDE

## REAR JACK (1/3) SCHEMATIC DIAGRAM



## **REAR JACK (2/3) SCHEMATIC DIAGRAM**



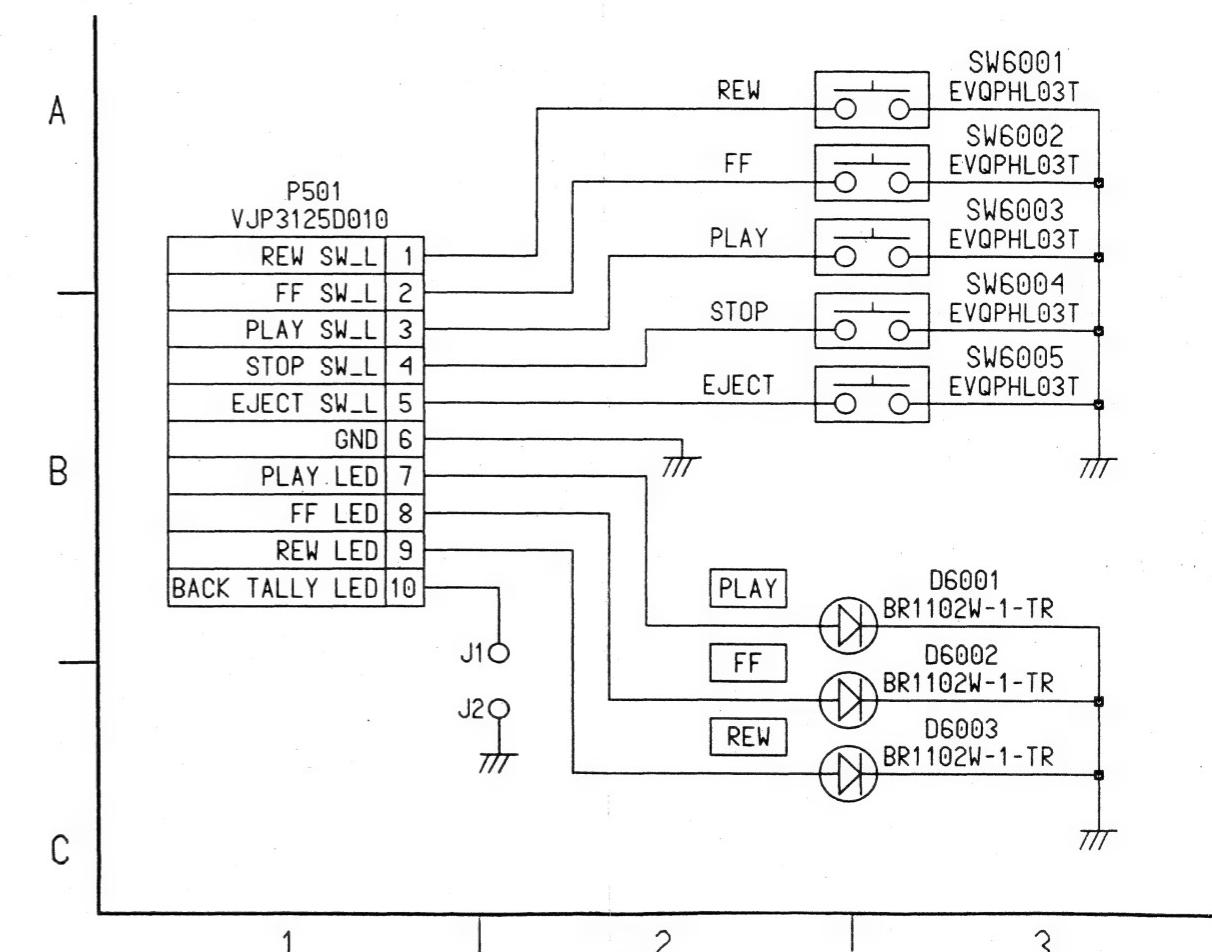
REVERSE SIDE

**REAR JACK 1/3**

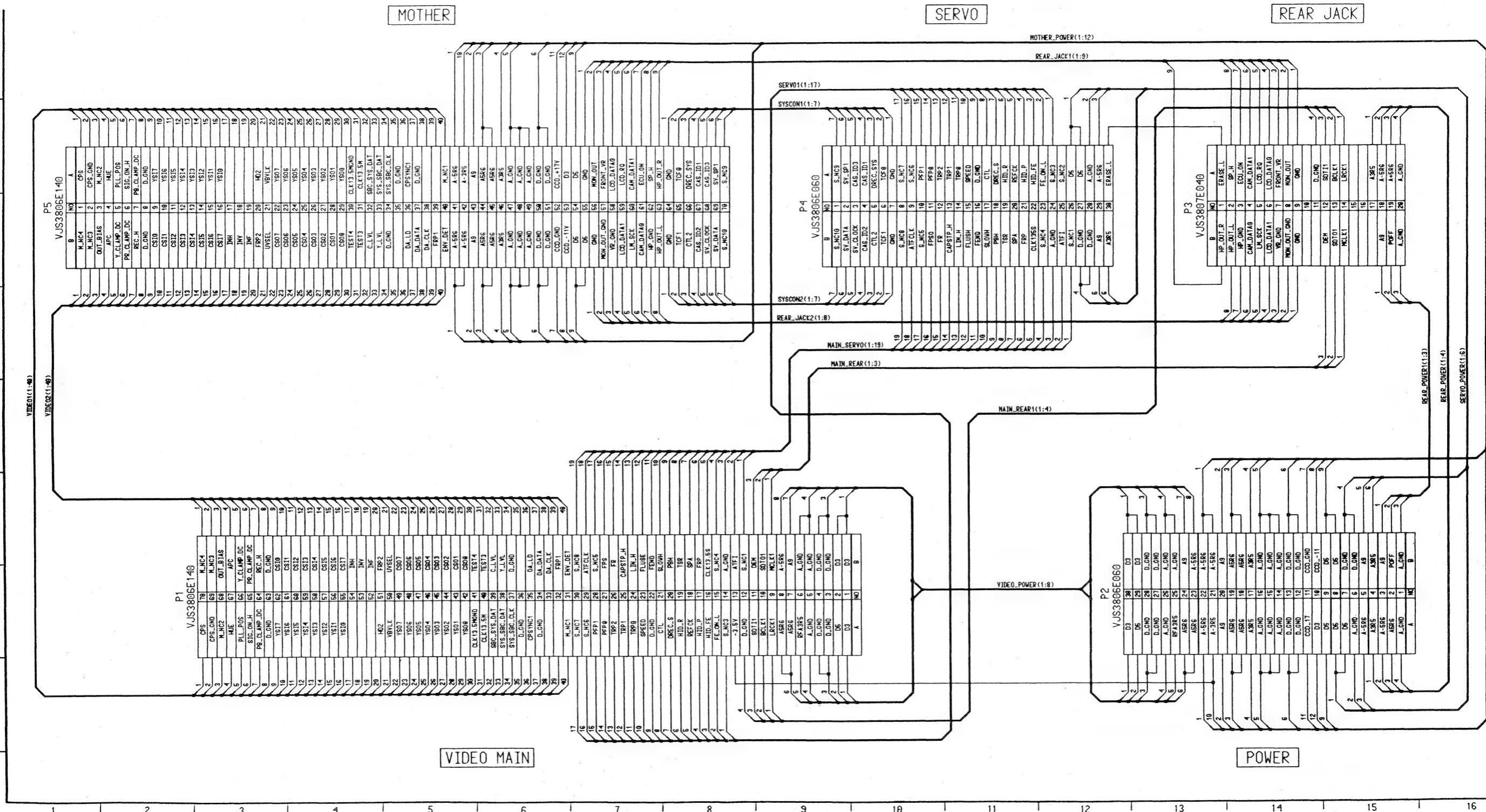
## REAR JACK (3/3) COMPARISON CHART BETWEEN MODELS

| \$REF\$ | T       | P.E     | ON      |
|---------|---------|---------|---------|
| P1016   | VJP3551 | VJS3551 | VJP3551 |
| P1017   | VJP3551 | VJS3551 | VJP3551 |
| P1018   | VJS3551 | VJP3551 | VJS3551 |
| R1003   | *PAT/J3 | 0/J3    | 0/J3    |
| R1004   | 0/J3    | *PAT/J3 | 0/J3    |
| R1005   | 0/J3    | *PAT/J3 | 0/J3    |
| R1006   | *PAT/J3 | 0/J3    | 0/J3    |
| R1007   | *PAT/J3 | 0/J3    | 0/J3    |
| R1008   | 0/J3    | *PAT/J3 | 0/J3    |
| R1009   | 0/J3    | *PAT/J3 | 0/J3    |
| R1010   | *PAT/J3 | 0/J3    | 0/J3    |
| R1011   | 0/J3    | *PAT/J3 | 0/J3    |
| R1012   | *PAT/J3 | 0/J3    | 0/J3    |
| R1013   | *PAT/J3 | 0/J3    | 0/J3    |
| R1014   | 0/J3    | *PAT/J3 | 0/J3    |
| R1041   | *PAT/J3 | *PAT/J3 | 0/J3    |
| R1050   | *PAT/J3 | *PAT/J3 | 0/J3    |
| R1051   | *PAT/J3 | *PAT/J3 | 0/J3    |

## OPERATION SCHEMATIC DIAGRAM



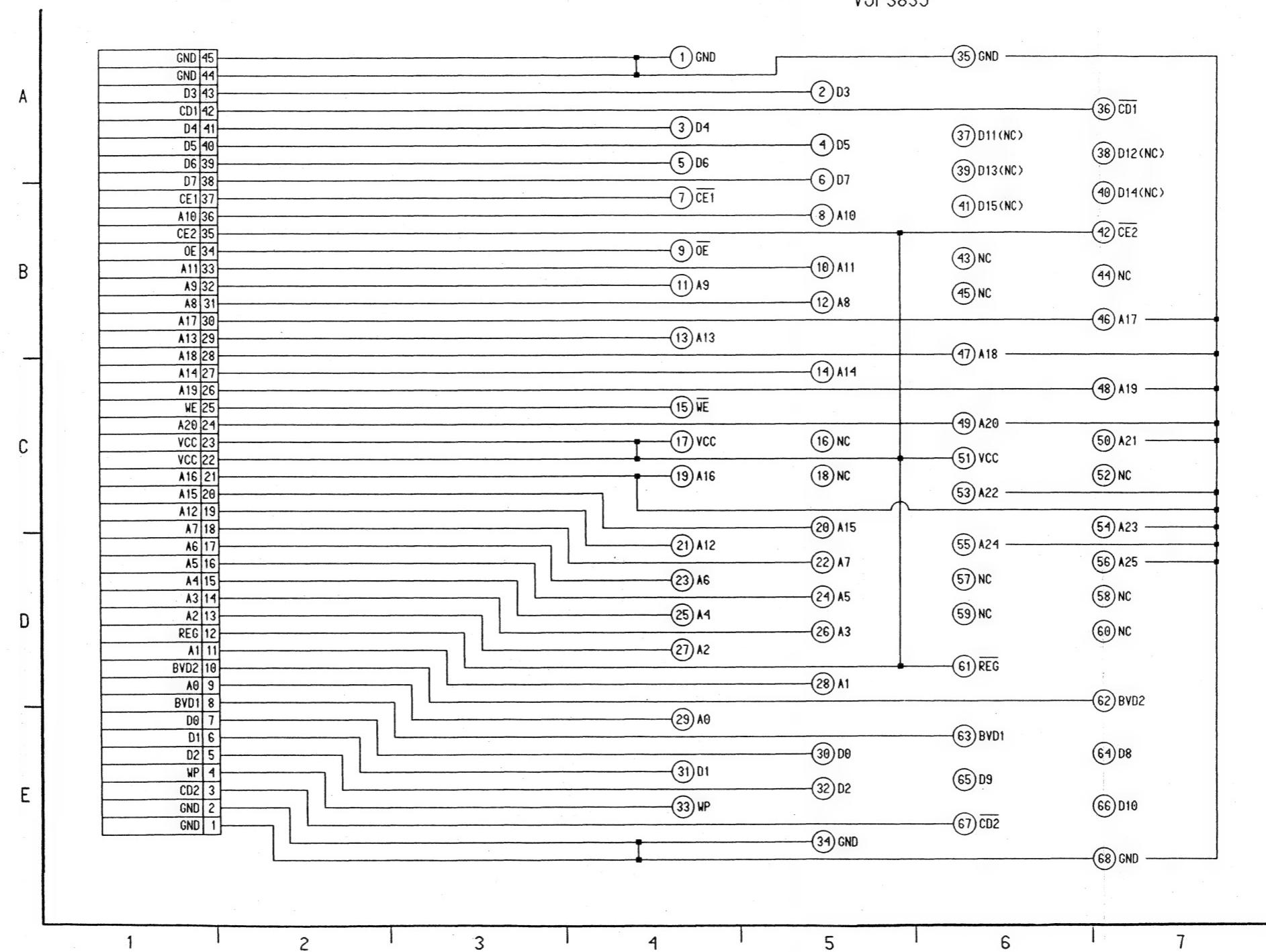
# VTR FLEX SCHEMATIC DIAGRAM



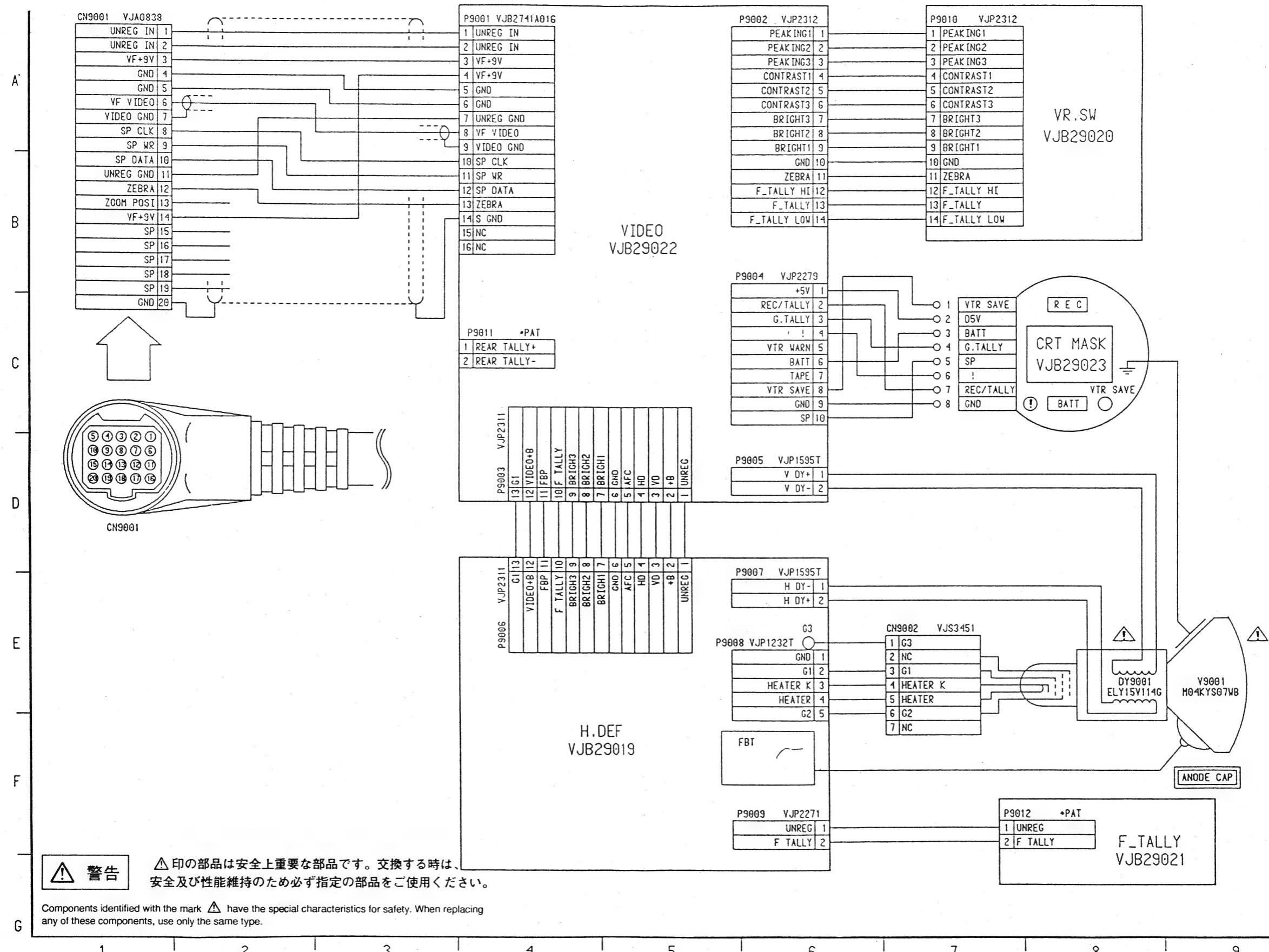
REVERSE SIDE

## MEMORY CARD FLEX SCHEMATIC DIAGRAM

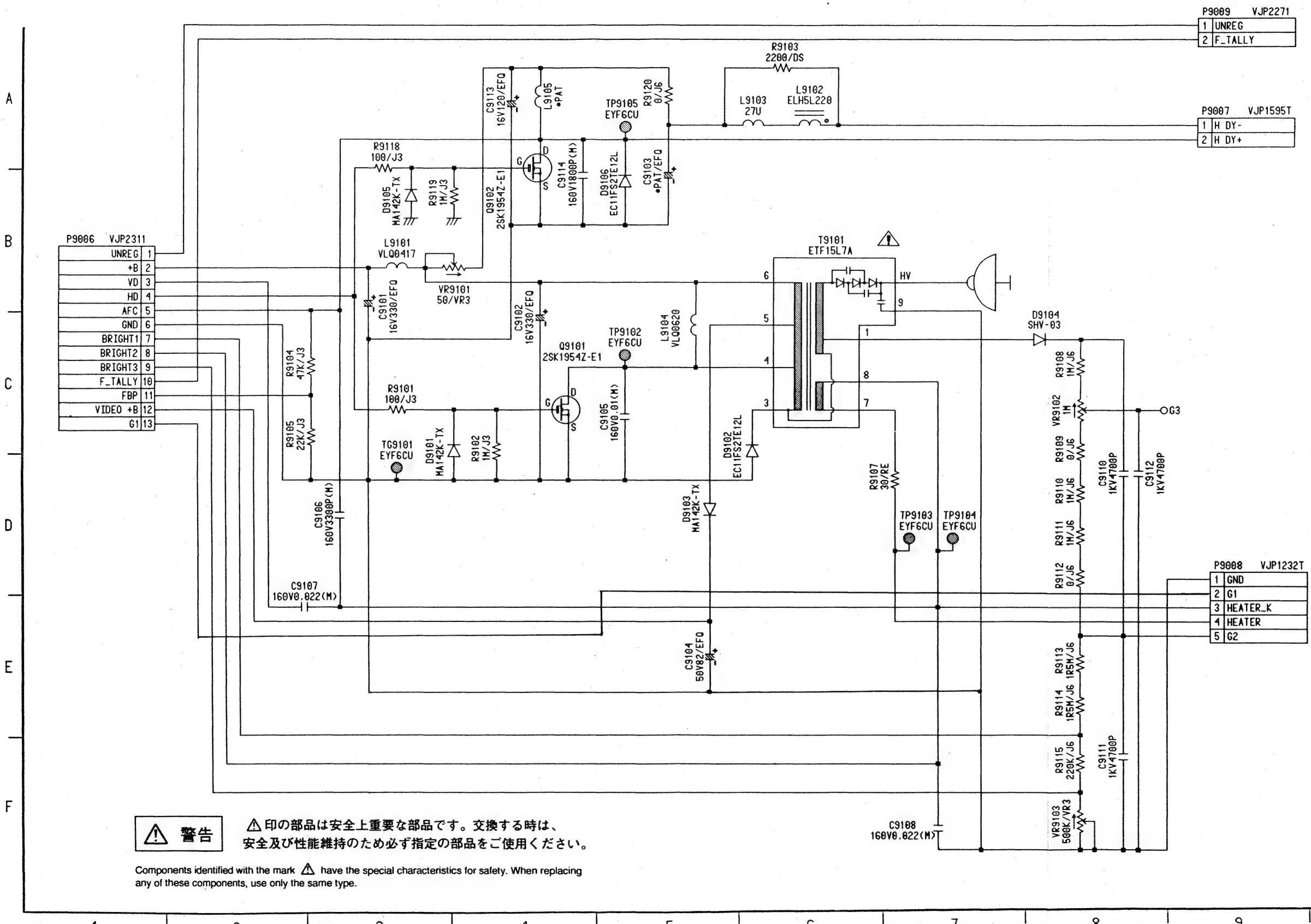
PCMCIA CONNECTOR  
VJP3839



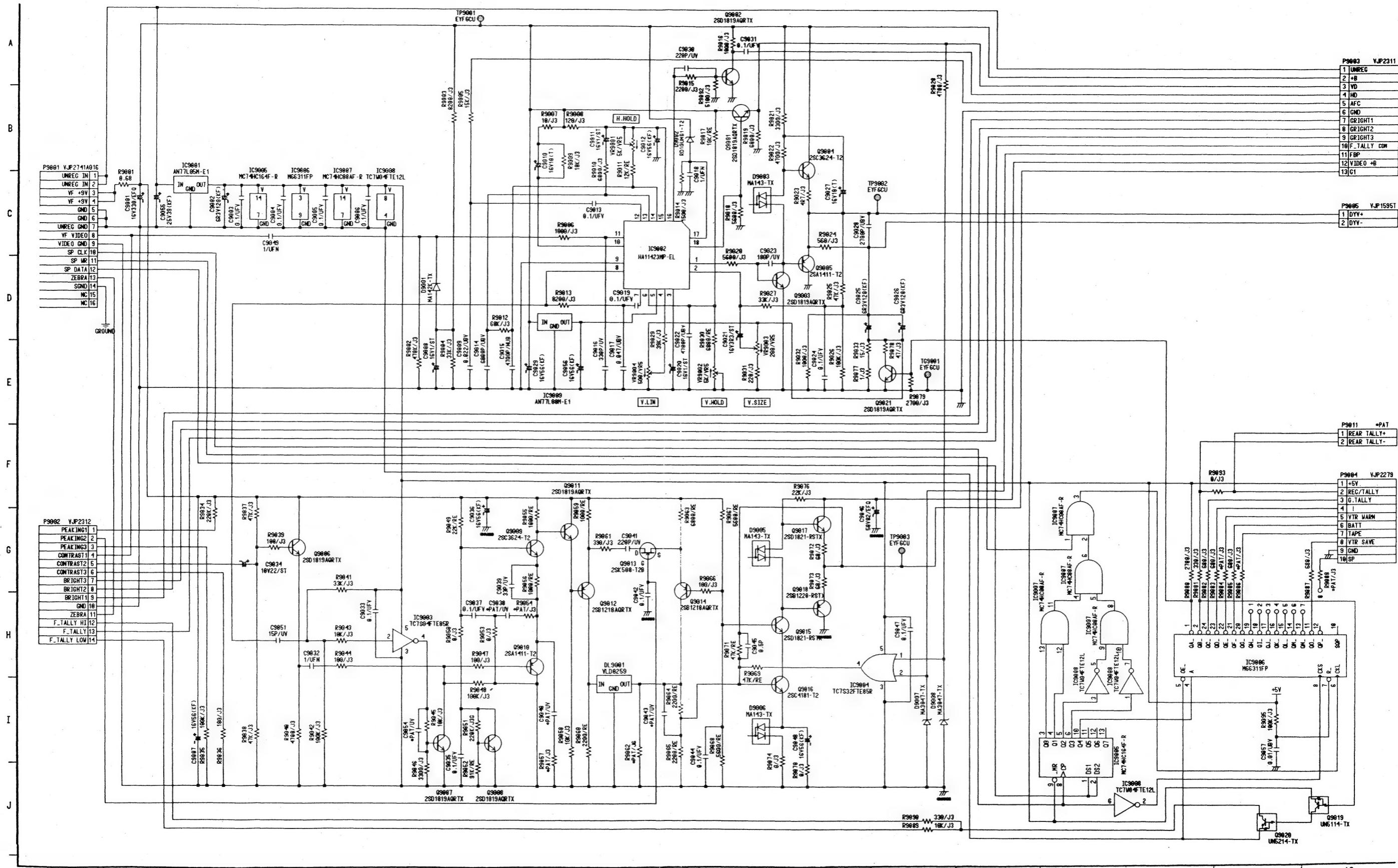
## EVF INTERCONNECTION



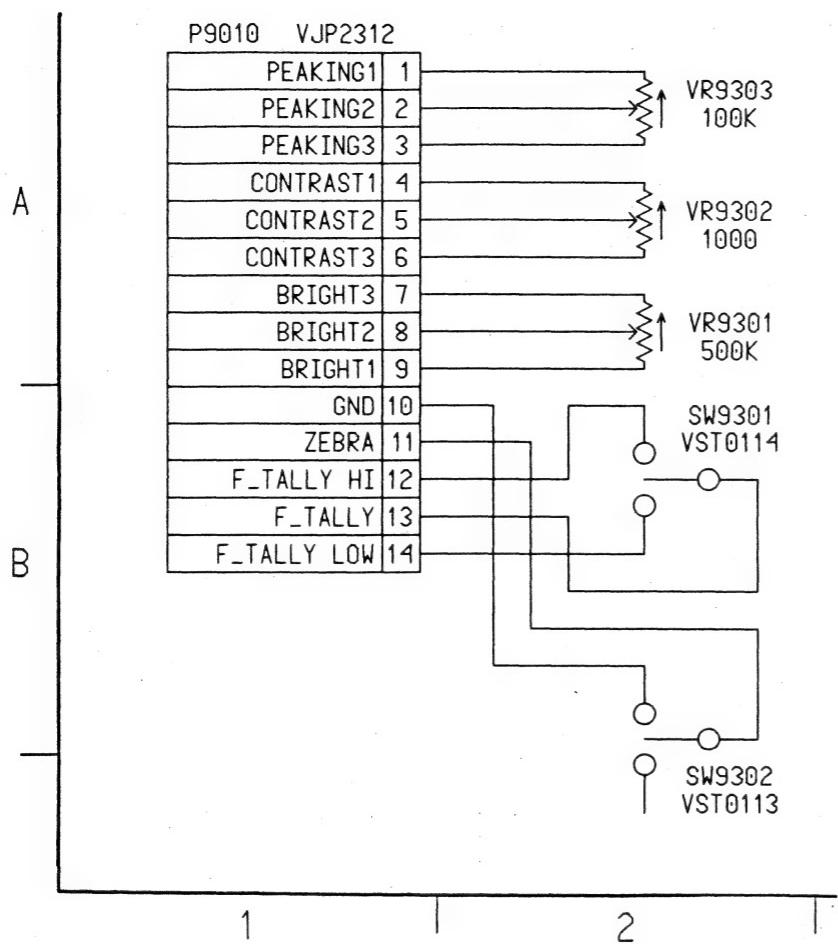
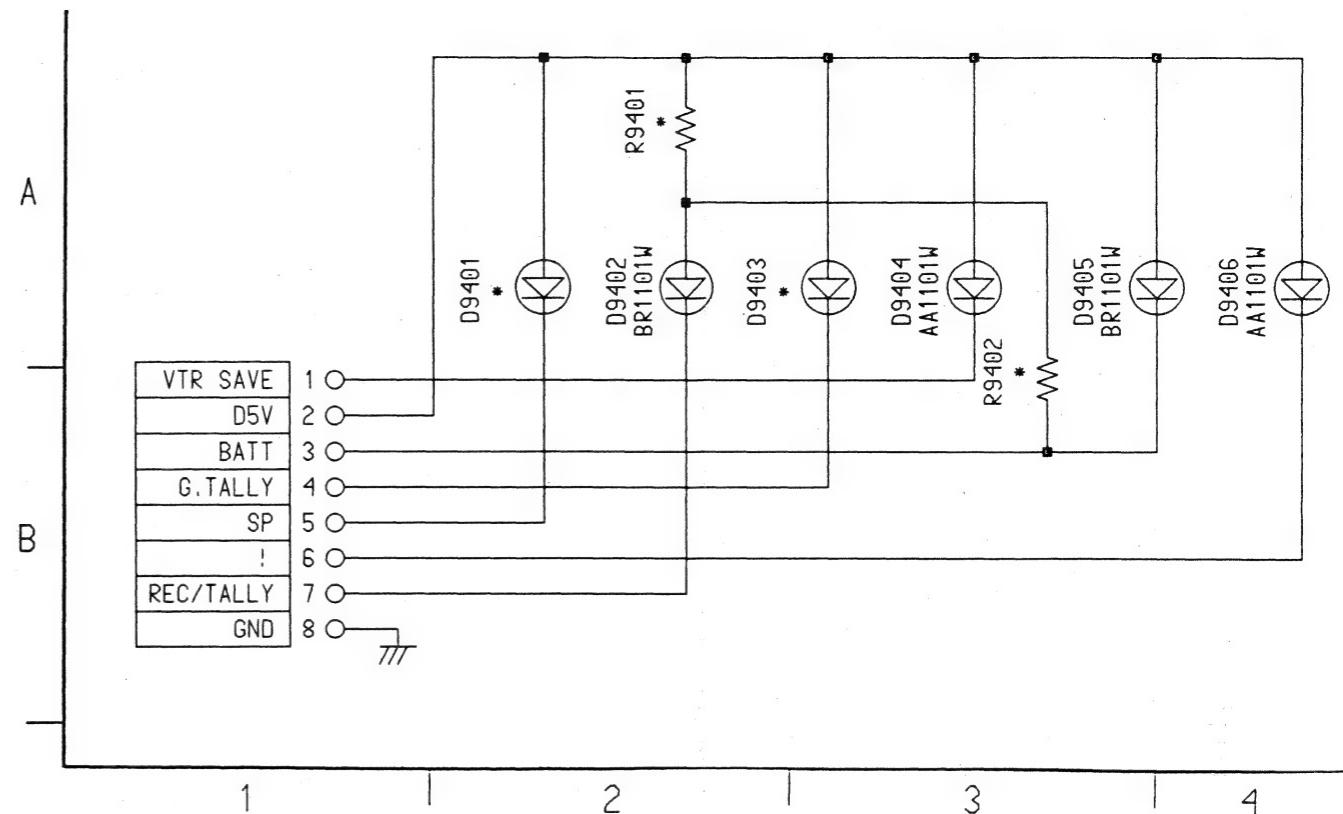
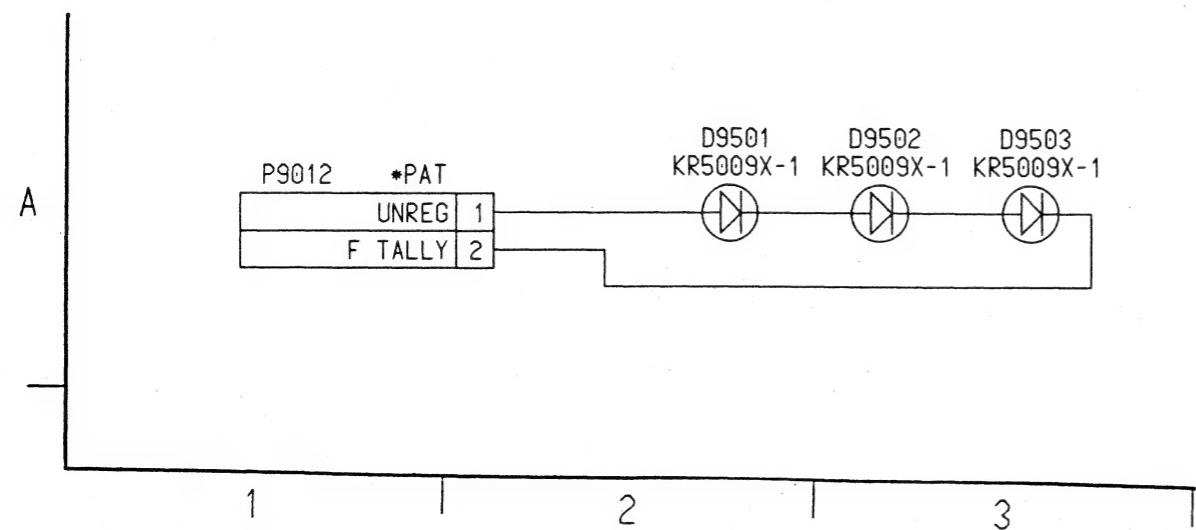
## H. DEF SCHEMATIC DIAGRAM



# **EVF VIDEO SCHEMATIC DIAGRAM**



REVERSE SIDE

**EVF SWVR SCHEMATIC DIAGRAM****EVF CRT MASK SCHEMATIC DIAGRAM****F TALLY SCHEMATIC DIAGRAM**

# **SECTION 3**

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# **CIRCUIT BOARDS**

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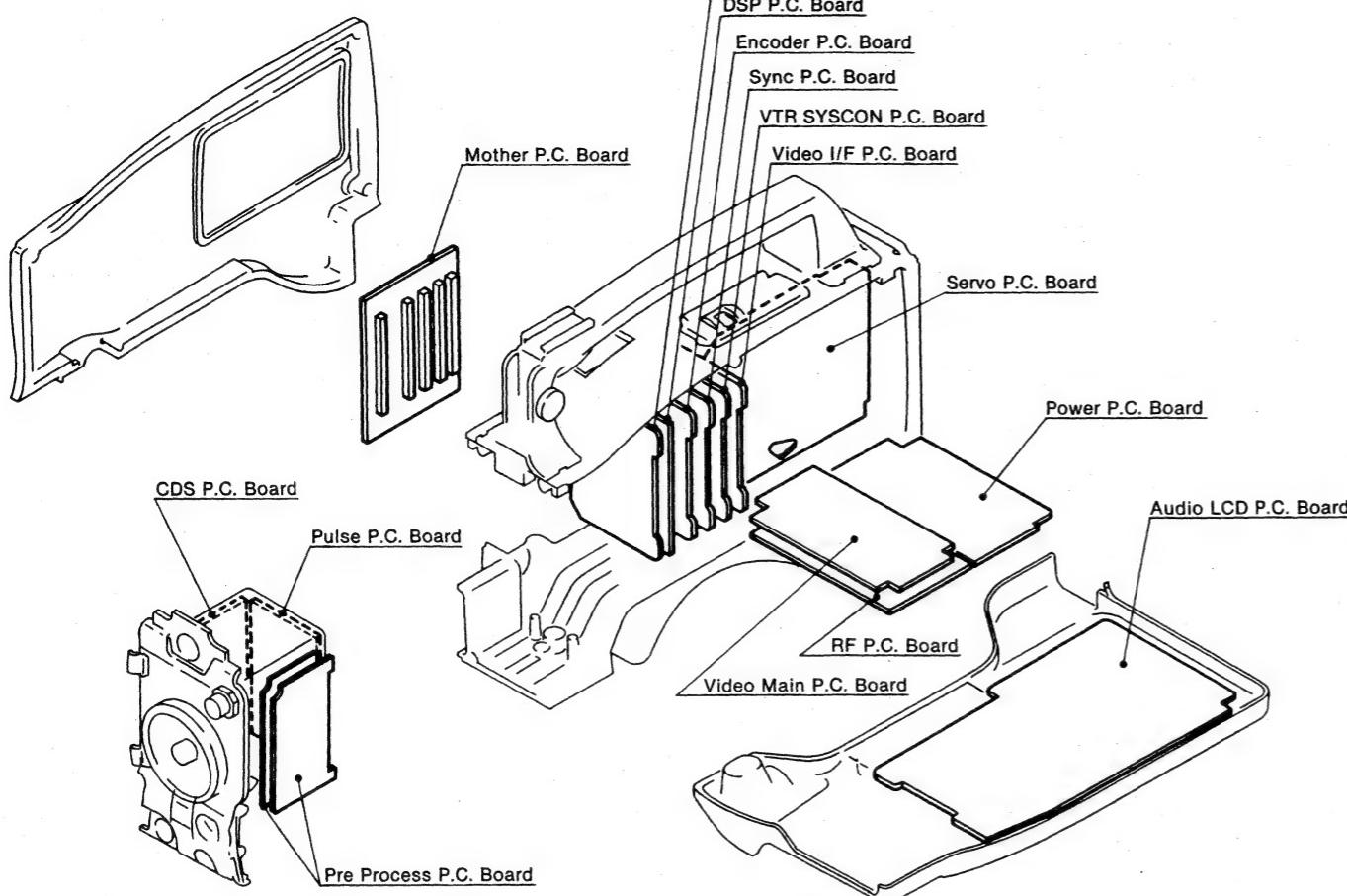
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## **CONTENTS**

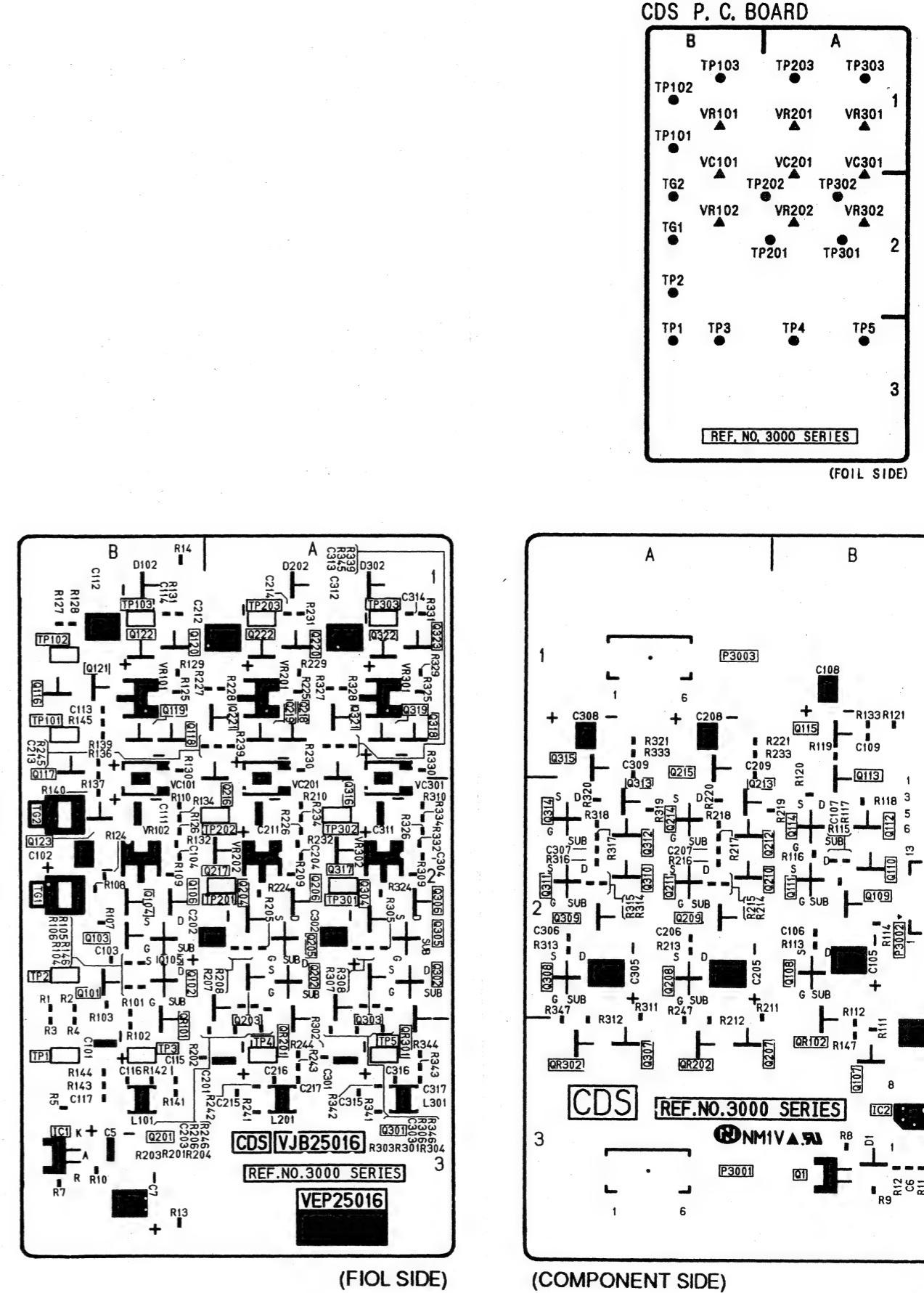
### **Circuit Board Diagrams**

|                              |      |
|------------------------------|------|
| Circuit Board Location ..... | 3-1  |
| CDS .....                    | 3-1  |
| PULSE .....                  | 3-2  |
| PRE PROCESS .....            | 3-3  |
| MOTHER .....                 | 3-4  |
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| CAMERA DSP .....             | 3-6  |
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| CAMERA SYNC .....            | 3-8  |
| VIDEO IF .....               | 3-9  |
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| RF .....                     | 3-13 |
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## P.C. BOARD LOCATION



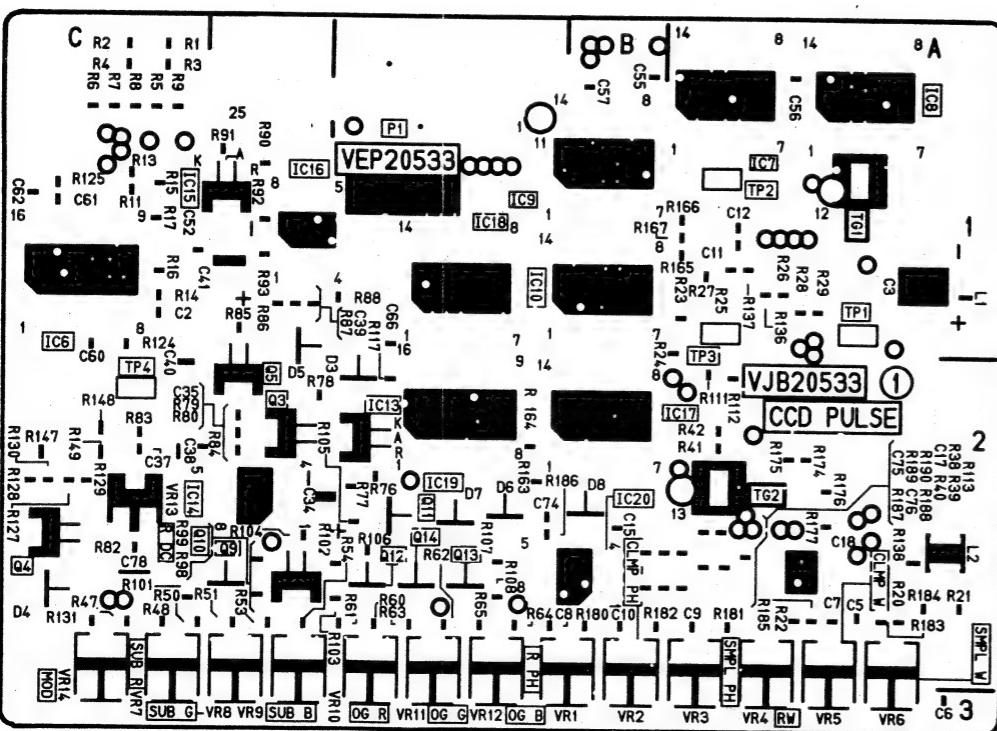
## CDS P.C. BOARD (VEP25016A)



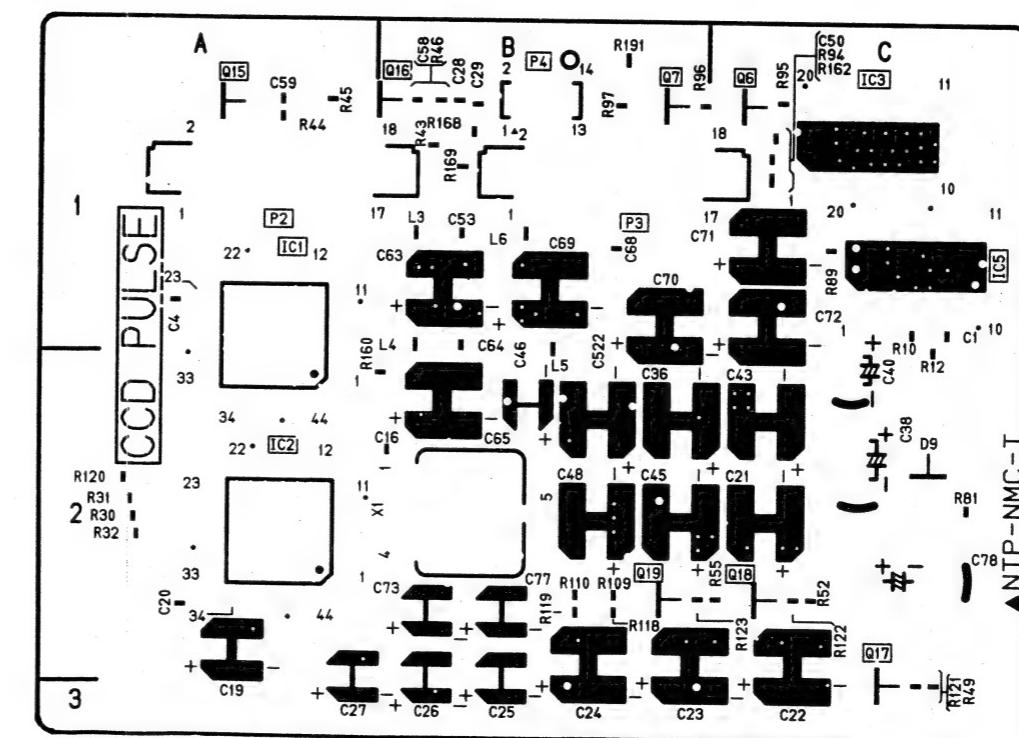
| CDS                  |       |
|----------------------|-------|
| Transistors          |       |
| Q3001                | B-3 Ⓛ |
| Q3101                | B-2 Ⓛ |
| Q3102                | B-2 Ⓛ |
| Q3103                | B-2 Ⓛ |
| Q3104                | B-2 Ⓛ |
| Q3105                | B-2 Ⓛ |
| Q3106                | B-2 Ⓛ |
| Q3107                | B-3 Ⓛ |
| Q3108                | B-2 Ⓛ |
| Q3109                | B-2 Ⓛ |
| Q3110                | B-2 Ⓛ |
| Q3111                | B-2 Ⓛ |
| Q3112                | B-2 Ⓛ |
| Q3113                | B-1 Ⓛ |
| Q3114                | B-2 Ⓛ |
| Q3115                | B-1 Ⓛ |
| Q3116                | B-1 Ⓛ |
| Q3117                | B-1 Ⓛ |
| Q3118                | B-1 Ⓛ |
| Q3119                | B-1 Ⓛ |
| Q3120                | B-1 Ⓛ |
| Q3121                | B-1 Ⓛ |
| Q3122                | B-1 Ⓛ |
| Q3123                | B-2 Ⓛ |
| Q3201                | B-3 Ⓛ |
| Q3202                | A-2 Ⓛ |
| Q3203                | A-2 Ⓛ |
| Q3204                | A-2 Ⓛ |
| Q3205                | A-2 Ⓛ |
| Q3206                | A-2 Ⓛ |
| Q3207                | A-3 Ⓛ |
| Q3208                | A-2 Ⓛ |
| Q3209                | A-2 Ⓛ |
| Q3210                | A-2 Ⓛ |
| Q3211                | A-2 Ⓛ |
| Q3212                | A-2 Ⓛ |
| Q3213                | A-2 Ⓛ |
| Q3214                | A-2 Ⓛ |
| Q3215                | A-1 Ⓛ |
| Q3216                | A-2 Ⓛ |
| Q3217                | A-2 Ⓛ |
| Q3218                | A-1 Ⓛ |
| Q3219                | A-1 Ⓛ |
| Q3220                | A-1 Ⓛ |
| Q3221                | A-1 Ⓛ |
| Q3222                | A-1 Ⓛ |
| Q3301                | A-3 Ⓛ |
| Q3302                | A-2 Ⓛ |
| Q3303                | A-2 Ⓛ |
| Q3304                | A-2 Ⓛ |
| Q3305                | A-2 Ⓛ |
| Q3306                | A-2 Ⓛ |
| Q3307                | A-3 Ⓛ |
| Q3308                | A-2 Ⓛ |
| Q3309                | A-2 Ⓛ |
| Q3310                | A-2 Ⓛ |
| Q3311                | A-2 Ⓛ |
| Q3312                | A-2 Ⓛ |
| Q3313                | A-2 Ⓛ |
| Q3314                | A-2 Ⓛ |
| Q3315                | A-1 Ⓛ |
| Q3316                | A-2 Ⓛ |
| Q3317                | A-2 Ⓛ |
| Q3318                | A-1 Ⓛ |
| Q3319                | A-1 Ⓛ |
| Q3320                | A-1 Ⓛ |
| Q3321                | A-1 Ⓛ |
| Q3322                | A-1 Ⓛ |
| Q3323                | A-1 Ⓛ |
| TP3004               | A-3 Ⓛ |
| TP3005               | A-3 Ⓛ |
| TP3101               | B-1 Ⓛ |
| TP3102               | B-1 Ⓛ |
| TP3103               | B-1 Ⓛ |
| TP3201               | A-2 Ⓛ |
| TP3202               | A-2 Ⓛ |
| TP3203               | A-1 Ⓛ |
| TP3301               | A-2 Ⓛ |
| TP3302               | A-2 Ⓛ |
| TP3303               | A-1 Ⓛ |
| TG3001               | B-2 Ⓛ |
| TG3002               | B-2 Ⓛ |
| Transistor-Resistors |       |
| QR3101               | B-3 Ⓛ |
| QR3102               | B-3 Ⓛ |
| QR3201               | A-3 Ⓛ |
| QR3202               | A-3 Ⓛ |
| QR3301               | A-3 Ⓛ |
| QR3302               | A-3 Ⓛ |
| Adjustments          |       |
| VC3101               | B-2 Ⓛ |
| VC3201               | A-2 Ⓛ |
| VC3301               | A-2 Ⓛ |
| VR3101               | B-1 Ⓛ |
| VR3102               | B-2 Ⓛ |
| VR3201               | B-1 Ⓛ |
| VR3202               | A-2 Ⓛ |
| VR3301               | A-1 Ⓛ |
| VR3302               | A-2 Ⓛ |
| Integrated Circuit   |       |
| IC3001               | B-3 Ⓛ |
| IC3002               | B-3 Ⓛ |
| Test Points          |       |
| TP3001               | B-3 Ⓛ |
| TP3002               | B-2 Ⓛ |
| TP3003               | B-3 Ⓛ |
| Connectors           |       |
| P3001                | A-3 Ⓛ |
| P3002                | B-2 Ⓛ |
| P3003                | A-1 Ⓛ |

ADDRESS INFORMATION  
Ⓐ...COMPONENT SIDE  
Ⓑ...FOIL SIDE

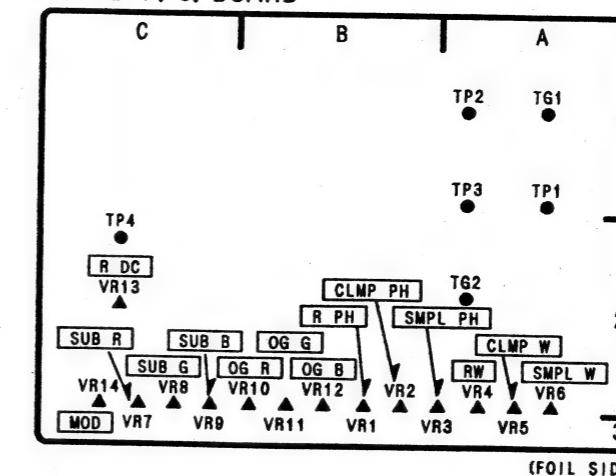
## **PULSE P.C. BOARD (VEP20533A)**



(FIOL SIDE)



(COMPONENT SIDE)

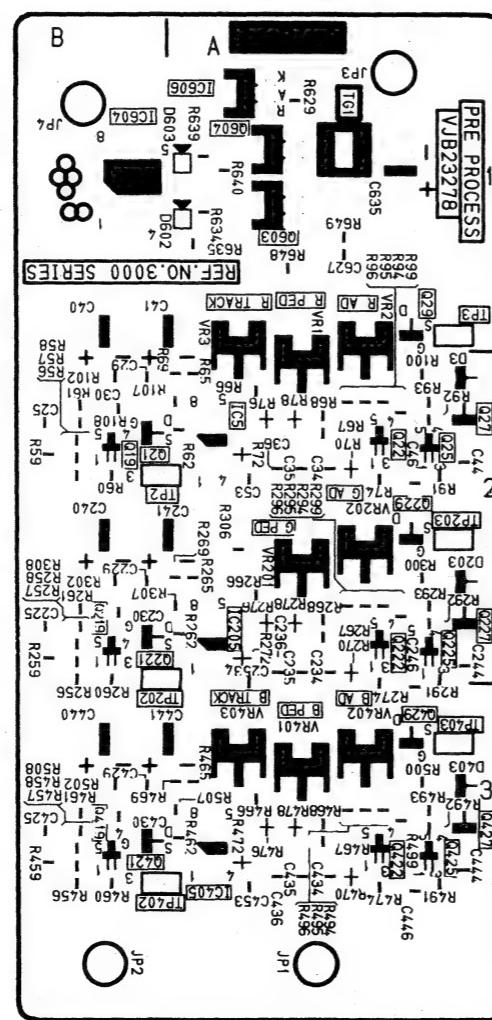
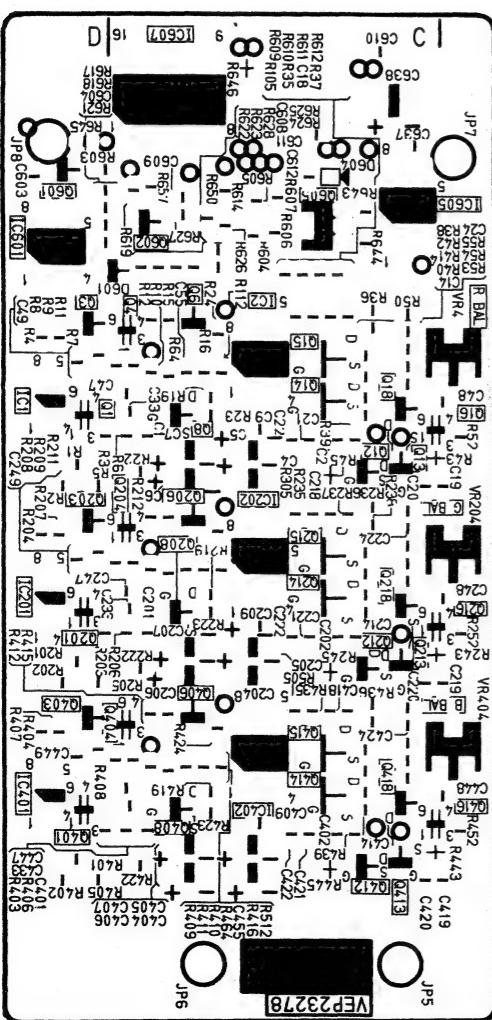


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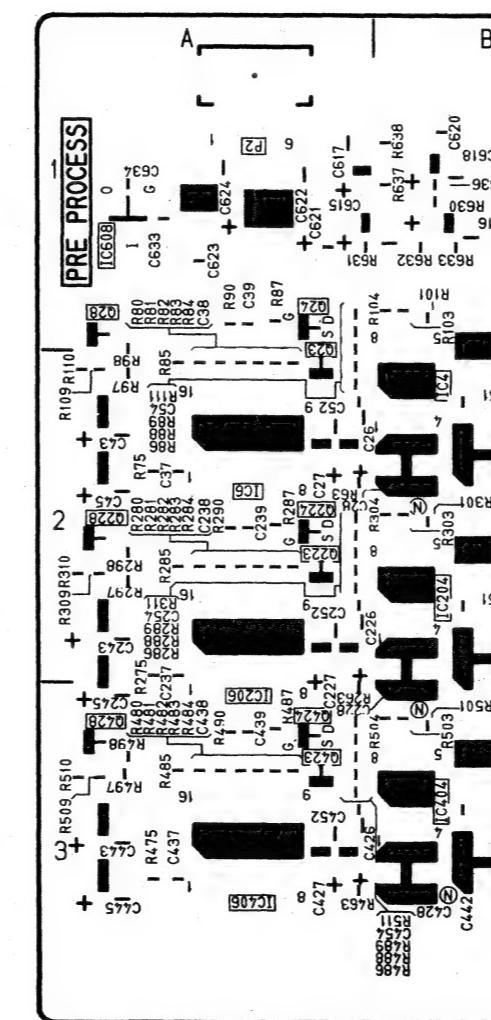
| PULSE              |         |
|--------------------|---------|
| Transistors        |         |
| Q3                 | C-2 (G) |
| Q4                 | C-2 (G) |
| Q5                 | C-2 (G) |
| Q6                 | C-1 (G) |
| Q7                 | B-1 (G) |
| Q9                 | C-2 (F) |
| Q10                | C-2 (F) |
| Q11                | B-2 (F) |
| Q12                | B-2 (F) |
| Q13                | B-2 (F) |
| Q14                | B-2 (F) |
| Q15                | A-1 (G) |
| Q16                | B-1 (G) |
| Q17                | C-2 (G) |
| Q18                | C-2 (G) |
| Q19                | B-2 (G) |
| Integrated Circuit |         |
| IC1                | A-1 (G) |
| IC2                | A-2 (G) |
| IC3                | C-1 (G) |
| IC5                | C-1 (G) |
| IC6                | C-1 (F) |
| IC7                | A-1 (F) |
| IC8                | A-1 (F) |
| IC9                | B-1 (F) |
| IC10               | B-1 (F) |
| IC13               | B-2 (F) |
| IC14               | C-2 (F) |
| IC15               | C-1 (F) |
| IC16               | C-1 (F) |
| IC17               | A-2 (F) |
| IC18               | B-1 (F) |
| IC19               | B-2 (F) |
| IC20               | B-2 (F) |
| Test Points        |         |
| TP1                | A-1 (F) |
| TP2                | A-1 (F) |
| TP3                | A-1 (F) |
| TP4                | C-2 (F) |
| TG1                | A-2 (F) |
| TG2                | A-2 (F) |
| Adjustment         |         |
| VR1                | B-3 (F) |
| VR2                | B-3 (F) |
| VR3                | A-3 (F) |
| VR4                | A-3 (F) |
| VR5                | A-3 (F) |
| VR6                | A-3 (F) |
| VR7                | C-3 (F) |
| VR8                | C-3 (F) |
| VR9                | C-3 (F) |
| VR10               | B-3 (F) |
| VR11               | B-3 (F) |
| VR12               | B-3 (F) |
| VR13               | C-2 (F) |
| VR14               | C-3 (F) |
| Connectors         |         |
| P1                 | B-1 (F) |
| P2                 | A-1 (G) |
| P3                 | B-1 (G) |
| P4                 | B-1 (G) |

**ADDRESS INFORMATION**

# PRE PROCESS P.C. BOARD (VEP23278A)

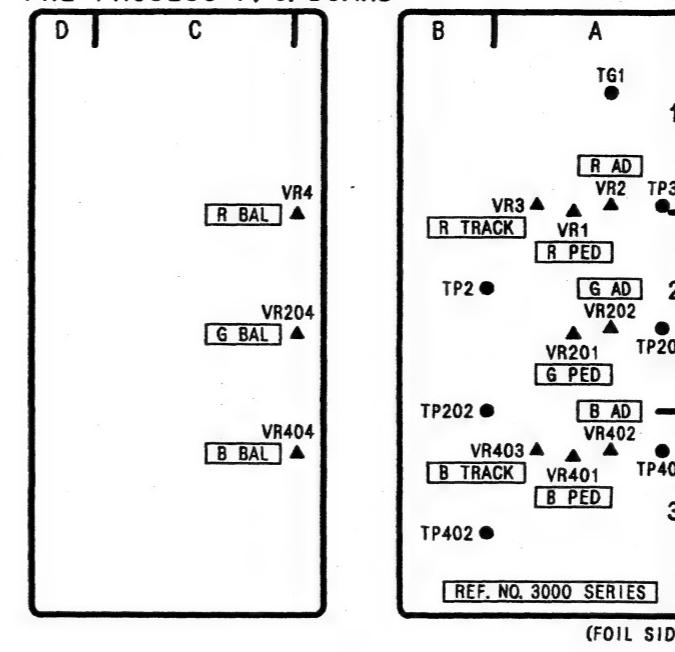


(FOIL SIDE)



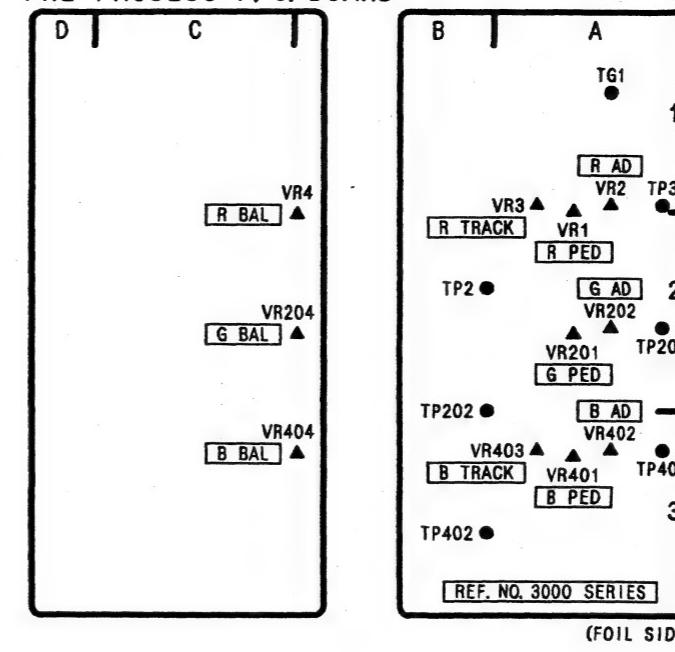
(COMPONENT SIDE)

## PRE PROCESS P. C. BOARD



(FOIL SIDE)

## PRE PROCESS P. C. BOARD



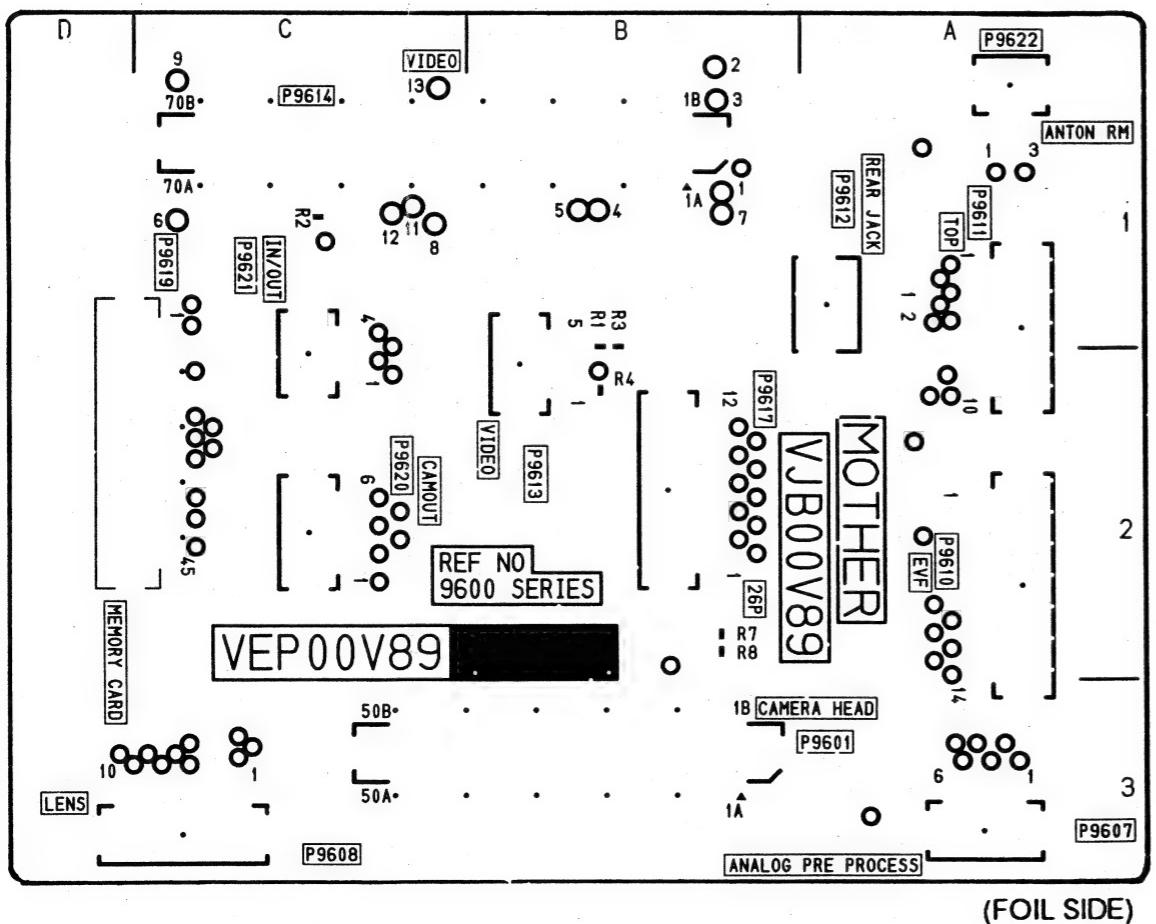
| PRE PROCESS        |            |
|--------------------|------------|
| Transistors        |            |
| Q3001              | Q3423 A-3  |
| Q3003              | Q3424 A-3  |
| Q3004              | Q3425 A-3  |
| Q3006              | Q3427 A-3  |
| Q3007              | Q3428 A-3  |
| Q3008              | Q3429 A-3  |
| Q3009              | Q3601 D-1  |
| Q3010              | Q3602 C-1  |
| Q3011              | Q3603 A-1  |
| Q3012              | Q3604 A-1  |
| Q3013              | Q3605 C-1  |
| Q3014              |            |
| Q3015              | C-2        |
| Q3016              | B-2        |
| Q3018              | C-2        |
| Q3019              | B-2        |
| Q3021              | B-2        |
| Q3022              | A-2        |
| Q3023              | A-2        |
| Q3024              | A-1        |
| Q3025              | A-2        |
| Q3027              | A-2        |
| Q3028              | A-1        |
| Q3029              | D-2        |
| Q3201              | D-2        |
| Q3203              | C-2        |
| Q3204              | C-3        |
| Q3206              | B-3        |
| Q3207              | A-3        |
| Q3208              | A-3        |
| Q3209              | D-1        |
| Q3210              | C-1        |
| Q3211              | B-1        |
| Q3212              | B-1        |
| Q3213              | C-1        |
| Q3214              | C-1        |
| Q3215              | C-1        |
| Q3216              | B-2        |
| Q3218              | C-2        |
| Q3219              | B-2        |
| Q3221              | B-2        |
| Q3222              | A-2        |
| Q3223              | A-2        |
| Q3224              | A-2        |
| Q3225              | A-2        |
| Q3227              | A-2        |
| Q3228              | A-2        |
| Q3229              | A-2        |
| Q3401              | D-3        |
| Q3403              | D-3        |
| Q3404              | C-3        |
| Q3406              | C-3        |
| Q3407              | C-3        |
| Q3408              | C-3        |
| Q3409              | C-3        |
| Q3410              | C-3        |
| Q3411              | C-3        |
| Q3412              | C-3        |
| Q3413              | C-3        |
| Q3414              | C-3        |
| Q3415              | C-3        |
| Q3416              | B-3        |
| Q3418              | C-3        |
| Q3419              | B-3        |
| Q3421              | B-3        |
| Q3422              | A-3        |
| Integrated Circuit |            |
| IC3001             | IC3001 D-2 |
| IC3002             | IC3002 C-1 |
| IC3003             | IC3003 C-1 |
| IC3004             | IC3004 B-2 |
| IC3005             | IC3005 A-2 |
| IC3006             | IC3006 A-2 |
| IC3007             | IC3007 C-2 |
| IC3008             | IC3008 C-2 |
| IC3009             | IC3009 C-2 |
| IC3010             | IC3010 C-2 |
| IC3011             | IC3011 C-2 |
| IC3012             | IC3012 C-2 |
| IC3013             | IC3013 C-2 |
| IC3014             | IC3014 C-2 |
| IC3015             | IC3015 C-1 |
| IC3016             | IC3016 B-2 |
| IC3018             | IC3018 C-2 |
| IC3019             | IC3019 B-2 |
| IC3021             | IC3021 B-2 |
| IC3022             | IC3022 A-2 |
| IC3023             | IC3023 A-2 |
| IC3024             | IC3024 A-1 |
| IC3025             | IC3025 A-2 |
| IC3027             | IC3027 A-2 |
| IC3028             | IC3028 A-1 |
| IC3029             | IC3029 D-2 |
| IC3201             | IC3201 C-2 |
| IC3203             | IC3203 C-2 |
| IC3204             | IC3204 C-3 |
| IC3206             | IC3206 C-3 |
| IC3207             | IC3207 A-3 |
| IC3208             | IC3208 A-3 |
| IC3209             | IC3209 C-2 |
| IC3210             | IC3210 C-2 |
| IC3211             | IC3211 C-2 |
| IC3212             | IC3212 C-2 |
| IC3213             | IC3213 C-2 |
| IC3214             | IC3214 C-2 |
| IC3215             | IC3215 C-2 |
| IC3216             | IC3216 B-2 |
| IC3218             | IC3218 C-2 |
| IC3219             | IC3219 B-2 |
| IC3221             | IC3221 B-2 |
| IC3222             | IC3222 A-2 |
| IC3223             | IC3223 A-2 |
| IC3224             | IC3224 A-2 |
| IC3225             | IC3225 A-2 |
| IC3227             | IC3227 A-2 |
| IC3228             | IC3228 A-2 |
| TP3002             | TP3002 B-2 |
| TP3003             | TP3003 A-1 |
| TP3202             | TP3202 B-3 |
| TP3203             | TP3203 A-2 |
| TP3402             | TP3402 B-3 |
| TP3403             | TP3403 A-2 |
| TG3001             | TG3001 A-1 |
| Test Points        |            |
| TP3002             |            |
| TP3003             |            |
| TP3202             |            |
| TP3203             |            |
| TP3402             |            |
| TP3403             |            |
| TG3001             |            |
| Adjustments        |            |
| VR3001             | VR3001 A-1 |
| VR3002             | VR3002 A-1 |
| VR3003             | VR3003 A-1 |
| VR3004             | VR3004 B-1 |
| VR3201             | VR3201 A-2 |
| VR3202             | VR3202 A-2 |
| VR3204             | VR3204 B-2 |
| VR3401             | VR3401 A-3 |
| VR3402             | VR3402 A-3 |
| VR3403             | VR3403 A-3 |
| VR3404             | VR3404 B-3 |
| Connectors         |            |
| P1                 | P1 C-3     |
| P2                 | P2 A-1     |
| P3                 | P3 C-1     |

ADDRESS INFORMATION  
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® ... FOIL SIDE

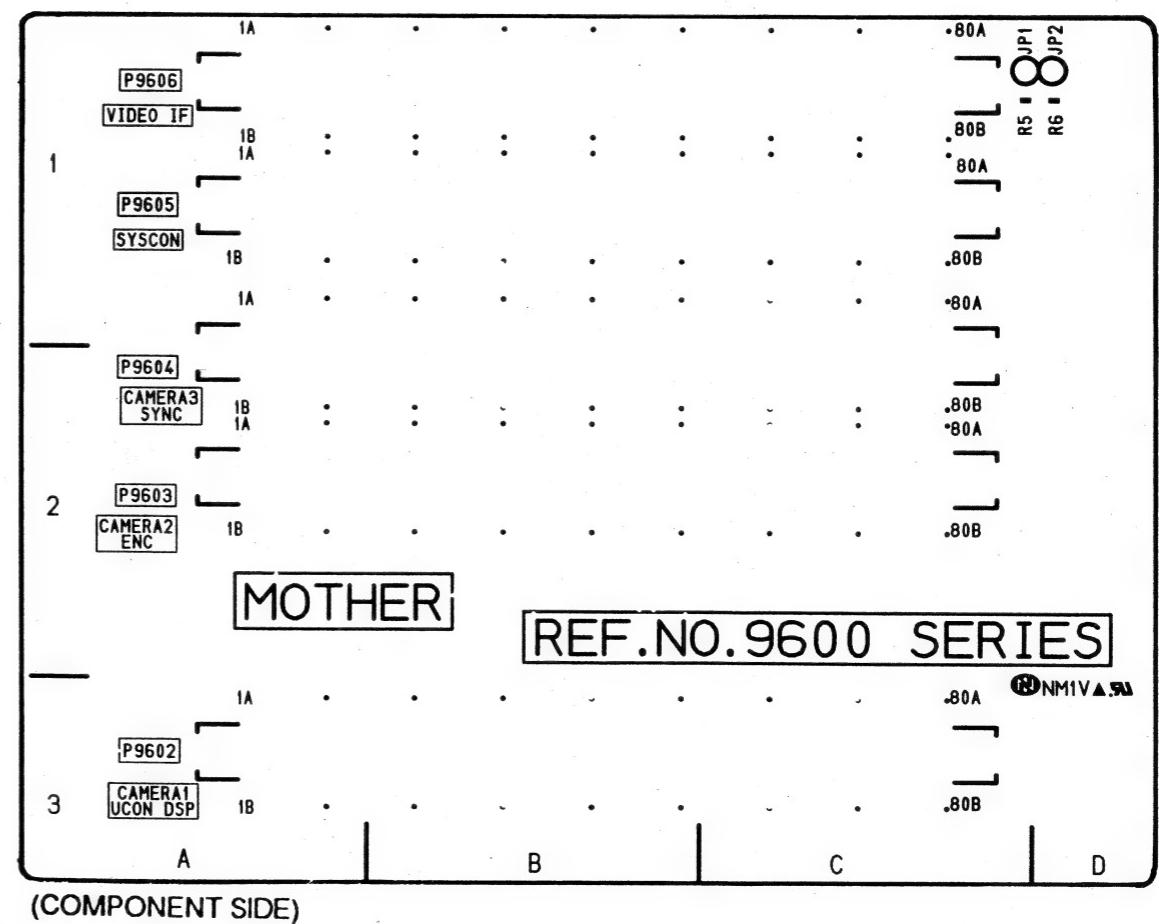
# MOTHER P.C. BOARD (VEP00V89A)

| MOTHER     |       |
|------------|-------|
| Connectors |       |
| P9601      | A-3 Ⓛ |
| P9602      | A-3 Ⓛ |
| P9603      | A-2 Ⓛ |
| P9604      | A-2 Ⓛ |
| P9605      | A-1 Ⓛ |
| P9606      | A-1 Ⓛ |
| P9607      | A-3 Ⓛ |
| P9608      | C-3 Ⓛ |
| P9610      | A-2 Ⓛ |
| P9611      | A-1 Ⓛ |
| P9612      | A-1 Ⓛ |
| P9613      | B-2 Ⓛ |
| P9614      | C-1 Ⓛ |
| P9617      | B-2 Ⓛ |
| P9619      | C-1 Ⓛ |
| P9620      | C-2 Ⓛ |
| P9621      | C-1 Ⓛ |
| P9622      | A-1 Ⓛ |

ADDRESS INFORMATION  
Ⓐ... COMPONENT SIDE  
Ⓑ... FOIL SIDE

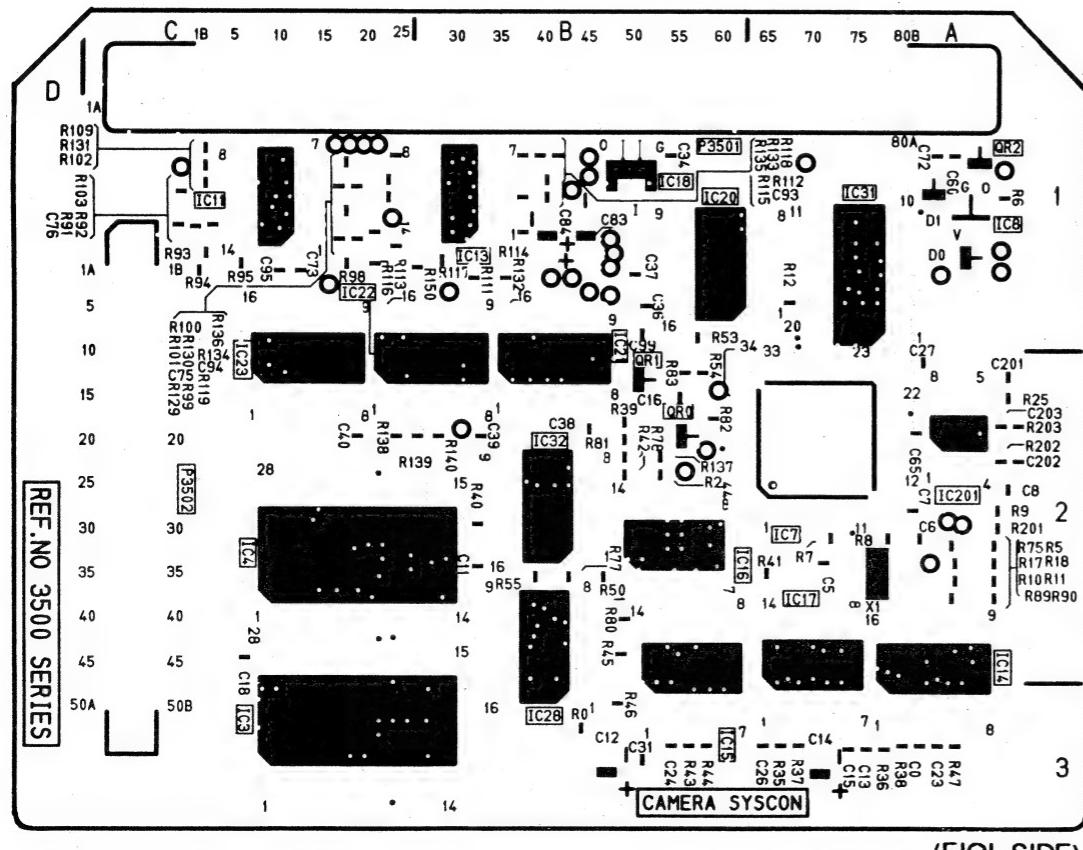


(FOIL SIDE)

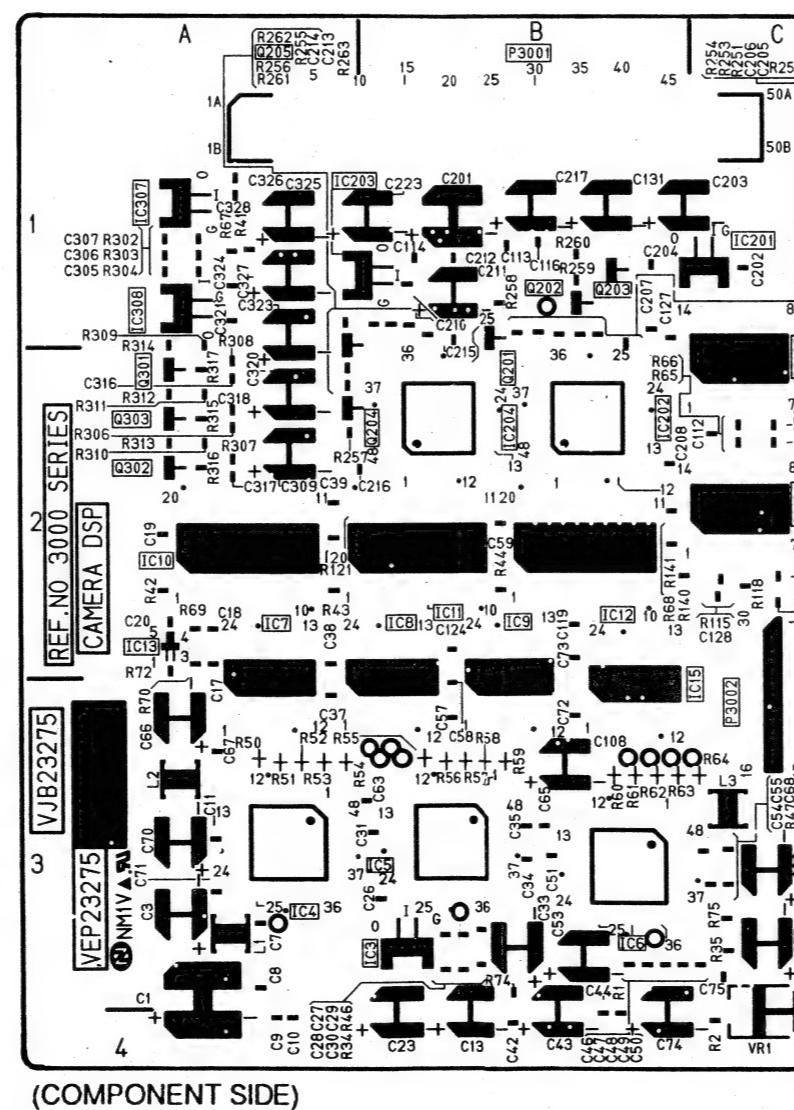
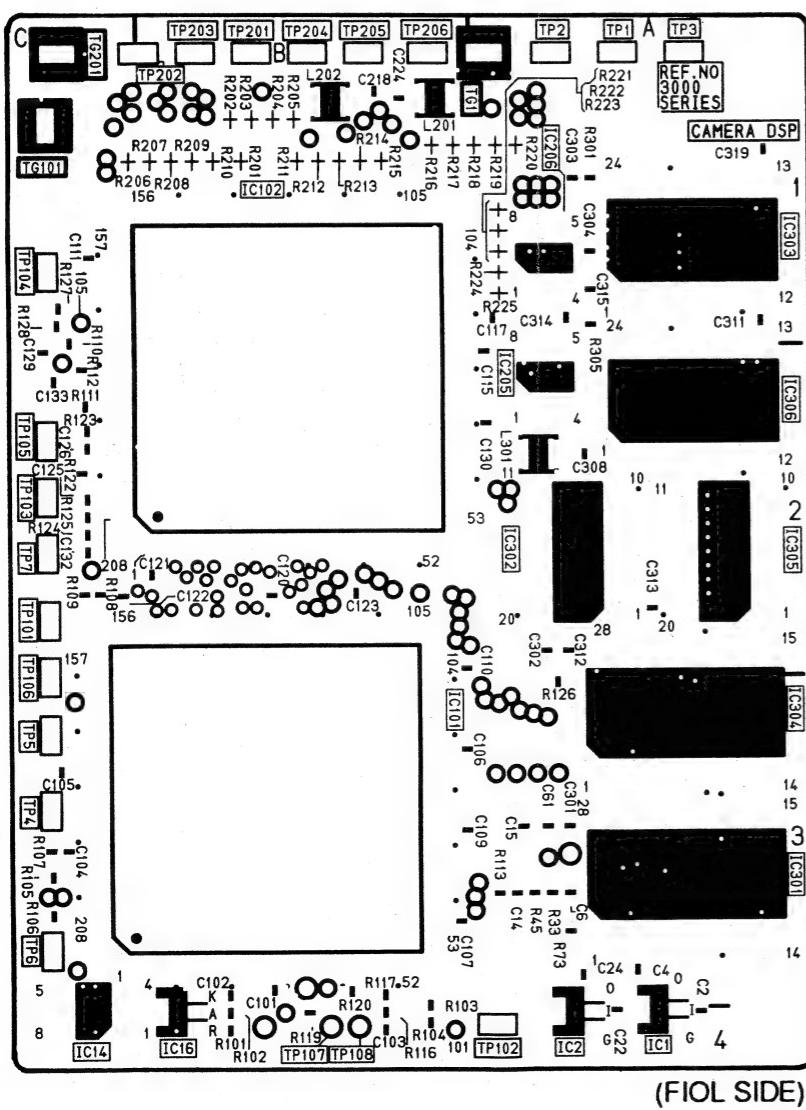


(COMPONENT SIDE)

# CAMERA SYSCON P.C. BOARD (VEP26074A)



## **CAMERA DSP P.C. BOARD (VEP23275A)**



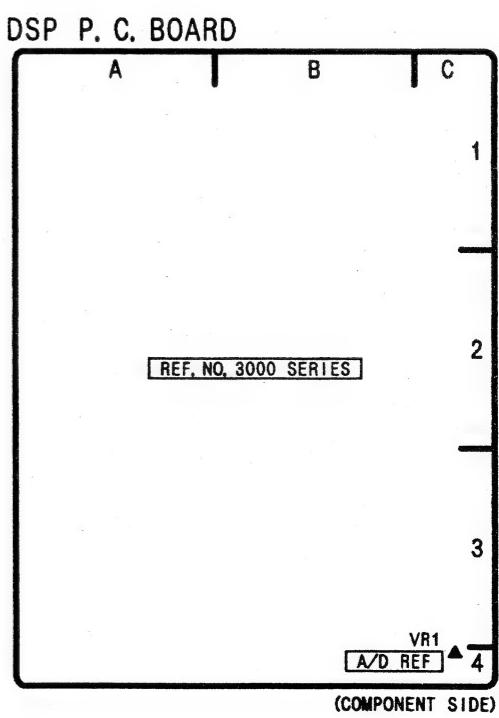
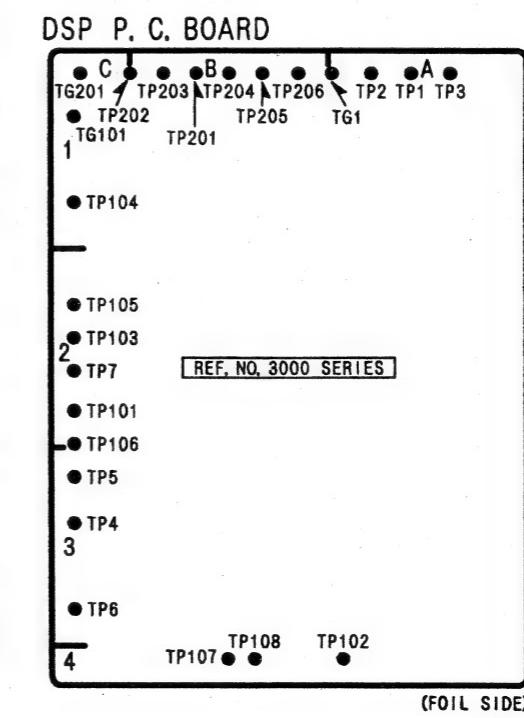
| CAMERA DSP          |         |  |             |         |
|---------------------|---------|--|-------------|---------|
| Transistors         |         |  | IC3305      | A-2 (F) |
| Q3201               | B-2 (C) |  | IC3306      | A-2 (F) |
| Q3202               | B-1 (C) |  | IC3307      | A-1 (C) |
| Q3203               | B-1 (C) |  | IC3308      | A-1 (C) |
| Q3204               | B-2 (C) |  |             |         |
| Q3205               | A-1 (C) |  |             |         |
| Integrated Circuits |         |  | Test Points |         |
| IC3001              | A-4 (F) |  | TP3001      | A-1 (F) |
| IC3002              | A-4 (F) |  | TP3002      | A-1 (F) |
| IC3003              | B-3 (C) |  | TP3003      | A-1 (F) |
| IC3004              | A-3 (C) |  | TP3004      | C-3 (F) |
| IC3005              | B-3 (C) |  | TP3005      | C-3 (F) |
| IC3006              | B-3 (C) |  | TP3006      | C-3 (F) |
| IC3007              | A-2 (C) |  | TP3007      | C-2 (F) |
| IC3008              | B-2 (C) |  | TP3101      | C-2 (F) |
| IC3009              | B-2 (C) |  | TP3102      | A-4 (F) |
| IC3010              | A-2 (C) |  | TP3103      | C-3 (F) |
| IC3011              | B-2 (C) |  | TP3104      | C-1 (F) |
| IC3012              | B-2 (C) |  | TP3105      | C-2 (F) |
| IC3013              | A-2 (C) |  | TP3106      | B-4 (F) |
| IC3014              | C-4 (F) |  | TP3107      | C-3 (F) |
| IC3015              | C-2 (C) |  | TP3108      | B-4 (F) |
| IC3016              | B-4 (F) |  | TP3201      | B-1 (F) |
| IC3101              | B-3 (F) |  | TP3202      | B-1 (F) |
| IC3102              | B-1 (F) |  | TP3203      | B-1 (F) |
| IC3103              | C-2 (C) |  | TP3204      | B-1 (F) |
| IC3104              | C-2 (C) |  | TP3205      | B-1 (F) |
| IC3201              | C-1 (C) |  | TP3206      | B-1 (F) |
| IC3202              | B-2 (C) |  | TG3001      | A-1 (F) |
| IC3203              | B-1 (C) |  | TG3101      | C-1 (F) |
| IC3204              | B-2 (C) |  | TG3201      | C-1 (F) |
| IC3205              | A-2 (F) |  |             |         |
| IC3206              | A-1 (F) |  |             |         |
| IC3301              | A-3 (F) |  |             |         |
| IC3302              | A-2 (F) |  |             |         |
| IC3303              | A-1 (F) |  |             |         |
| IC3304              | A-3 (F) |  |             |         |
| Adjustments         |         |  |             |         |
|                     |         |  | VR3001      | C-4 (C) |
| Connectors          |         |  |             |         |
|                     |         |  | P3001       | B-1 (C) |
|                     |         |  | P3002       | C-3 (C) |

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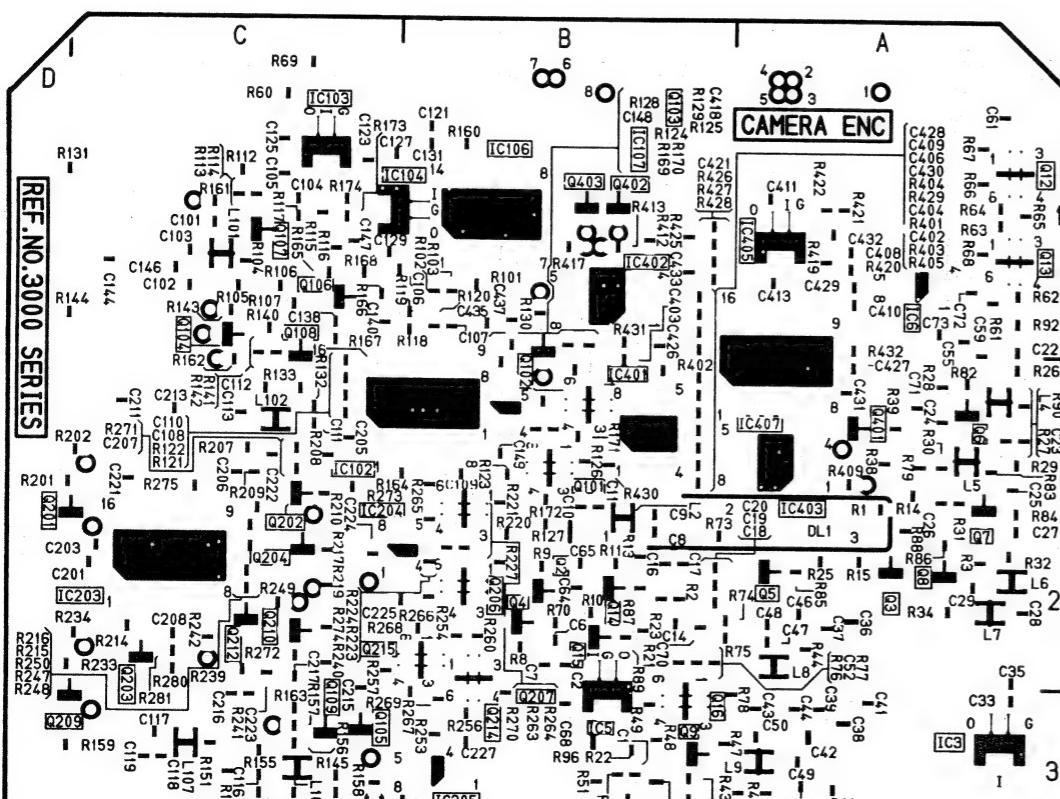
**ADDRESS INFORMATION**

ADDRESS INFORMATION  
© ... COMPONENT SIDE

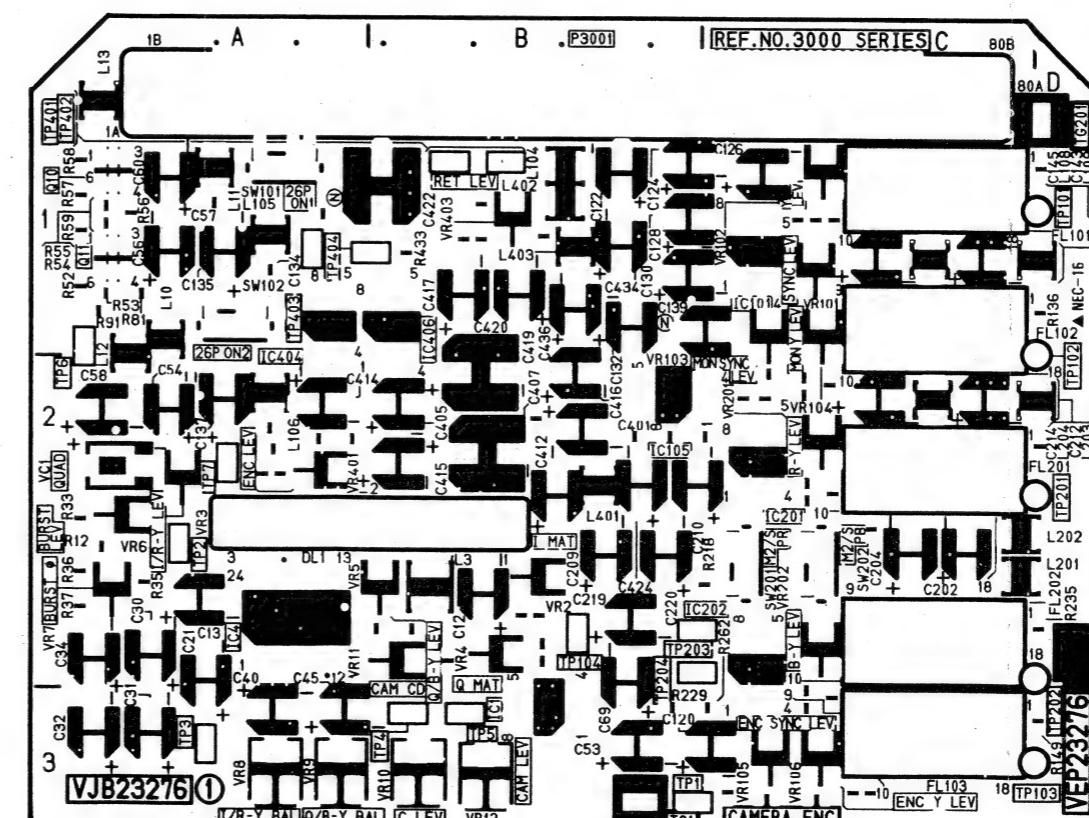
**F... FOIL SIDE**



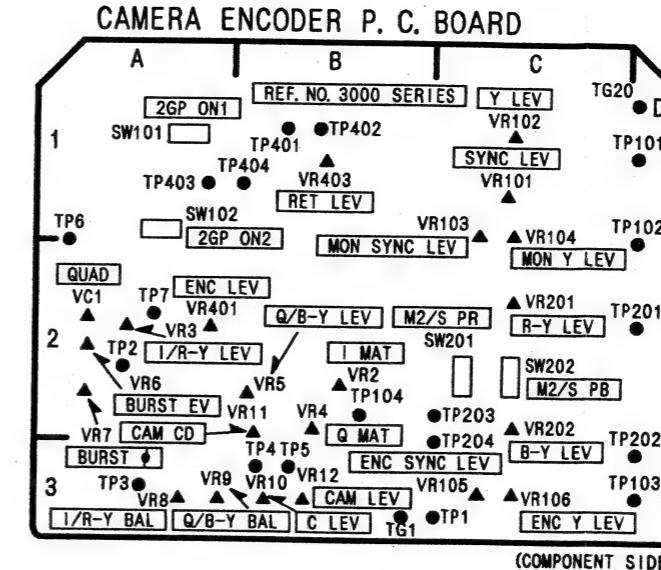
# **CAMERA ENCODER P.C. BOARD (VEP23276A)**



(FOIL SIDE)



(COMPONENT SIDE)



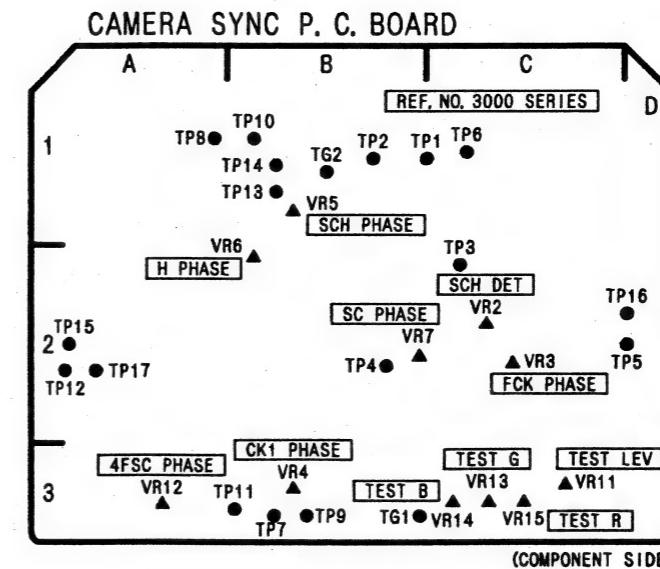
(COMPONENT SIDE)

| CAMERA ENCODER      |         |                            |  |                   |             |
|---------------------|---------|----------------------------|--|-------------------|-------------|
| Transistors         |         | IC3404<br>IC3405<br>IC3406 |  | A-1<br>A-1<br>B-1 | C<br>C<br>C |
| Q3003               | A-2 (F) | TP3001                     |  | B-3               | (C)         |
| Q3005               | A-2 (F) | TP3002                     |  | A-2               | (C)         |
| Q3006               | A-2 (F) | TP3003                     |  | A-3               | (C)         |
| Q3008               | A-2 (F) | TP3004                     |  | B-3               | (C)         |
| Q3009               | B-3 (F) | TP3005                     |  | B-3               | (C)         |
| Q3010               | A-1 (C) | TP3006                     |  | A-2               | (C)         |
| Q3011               | A-1 (C) | TP3007                     |  | A-2               | (C)         |
| Q3012               | A-1 (F) | TP3101                     |  | A-2               | (C)         |
| Q3013               | A-1 (F) | TP3102                     |  | A-3               | (C)         |
| Q3014               | B-2 (F) | TP3103                     |  | D-3               | (C)         |
| Q3015               | B-2 (F) | TP3104                     |  | B-2               | (C)         |
| Q3016               | B-3 (F) | TP3105                     |  | D-1               | (C)         |
| Q3101               | B-2 (F) | TP3106                     |  | A-2               | (C)         |
| Q3102               | B-2 (F) | TP3201                     |  | D-2               | (C)         |
| Q3103               | B-1 (F) | TP3202                     |  | D-3               | (C)         |
| Q3104               | C-1 (F) | TP3203                     |  | B-2               | (C)         |
| Q3105               | C-3 (F) | TP3401                     |  | A-1               | (C)         |
| Q3106               | C-1 (F) | TP3402                     |  | A-1               | (C)         |
| Q3107               | C-1 (F) | TP3403                     |  | A-1               | (C)         |
| Q3108               | C-1 (F) | TP3404                     |  | A-1               | (C)         |
| Q3109               | C-3 (F) | TG3001                     |  | B-3               | (C)         |
| Q3201               | D-2 (F) | TG3201                     |  | D-1               | (C)         |
| Q3202               | C-2 (F) |                            |  |                   |             |
| Q3203               | C-3 (C) | Adjustments                |  |                   |             |
| Q3204               | C-2 (F) | VC3001                     |  | A-2               | (C)         |
| Q3206               | B-2 (F) | VR3003                     |  | A-2               | (C)         |
| Q3207               | B-3 (F) | VR3005                     |  | A-2               | (C)         |
| Q3209               | D-3 (F) | VR3006                     |  | A-2               | (C)         |
| Q3210               | C-2 (F) | VR3008                     |  | A-3               | (C)         |
| Q3212               | C-2 (F) | VR3009                     |  | A-3               | (C)         |
| Q3214               | B-3 (F) | VR3010                     |  | B-3               | (C)         |
| Q3215               | C-2 (F) | VR3011                     |  | A-2               | (C)         |
| Q3401               | A-2 (F) | VR3012                     |  | B-3               | (C)         |
| Q3402               | B-1 (F) | VR3101                     |  | C-1               | (C)         |
| Q3403               | B-1 (F) | VR3102                     |  | A-2               | (C)         |
| Integrated Circuits |         | VR3103                     |  | B-1               | (C)         |
| IC3001              | B-3 (C) | VR3104                     |  | B-2               | (C)         |
| IC3003              | A-3 (F) | VR3105                     |  | C-3               | (C)         |
| IC3004              | A-2 (C) | VR3106                     |  | C-3               | (C)         |
| IC3005              | B-3 (F) | VR3201                     |  | C-2               | (C)         |
| IC3006              | A-1 (F) | VR3202                     |  | C-2               | (C)         |
| IC3101              | C-1 (C) | VR3401                     |  | A-2               | (C)         |
| IC3102              | C-2 (F) | VR3403                     |  | B-1               | (C)         |
| IC3103              | C-1 (F) |                            |  |                   |             |
| IC3104              | C-1 (F) | Switches                   |  |                   |             |
| IC3105              | B-2 (C) | SW3101                     |  | A-1               | (C)         |
| IC3106              | B-1 (F) | SW3102                     |  | A-1               | (C)         |
| IC3107              | B-1 (F) | SW3201                     |  | C-2               | (C)         |
| IC3201              | C-2 (C) | SW3202                     |  | C-2               | (C)         |
| IC3202              | B-2 (C) |                            |  |                   |             |
| IC3203              | C-2 (F) | Connectors                 |  |                   |             |
| IC3204              | C-2 (F) | P3001                      |  | B-1               | (C)         |
| IC3205              | B-3 (F) |                            |  |                   |             |
| IC3401              | B-2 (F) |                            |  |                   |             |
| IC3402              | B-1 (F) |                            |  |                   |             |
| IC3403              | A-2 (F) |                            |  |                   |             |

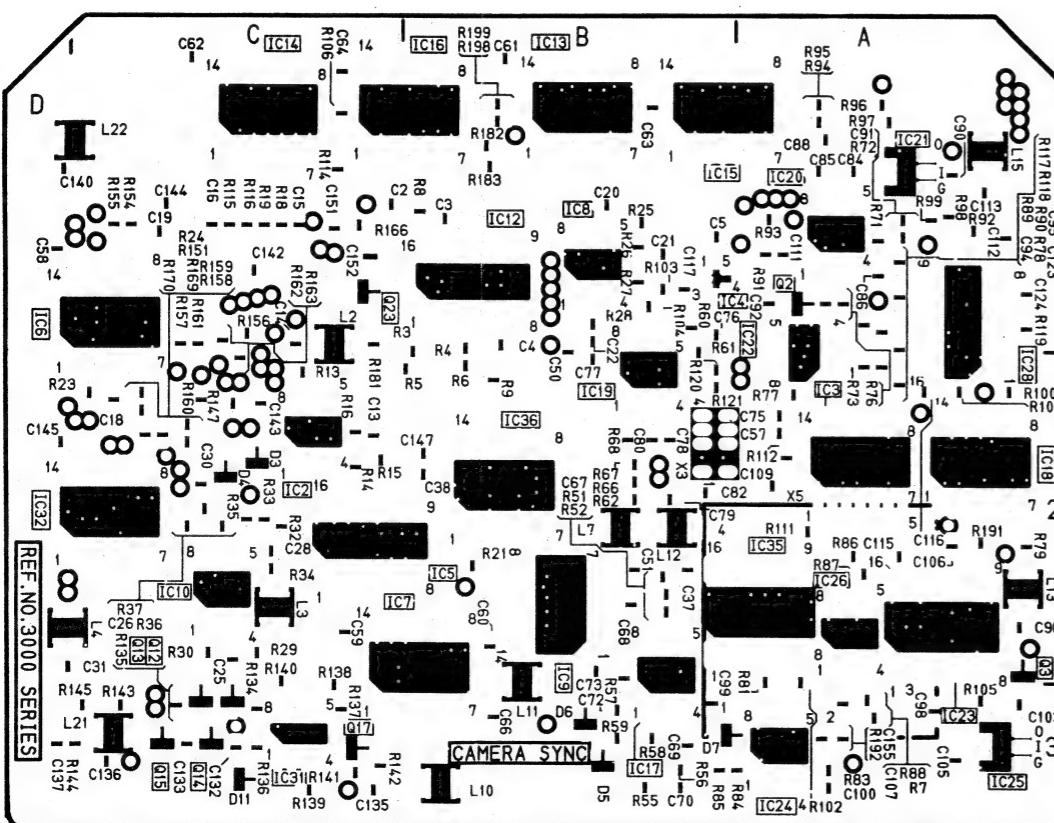
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**ADDRESS INFORMATION**

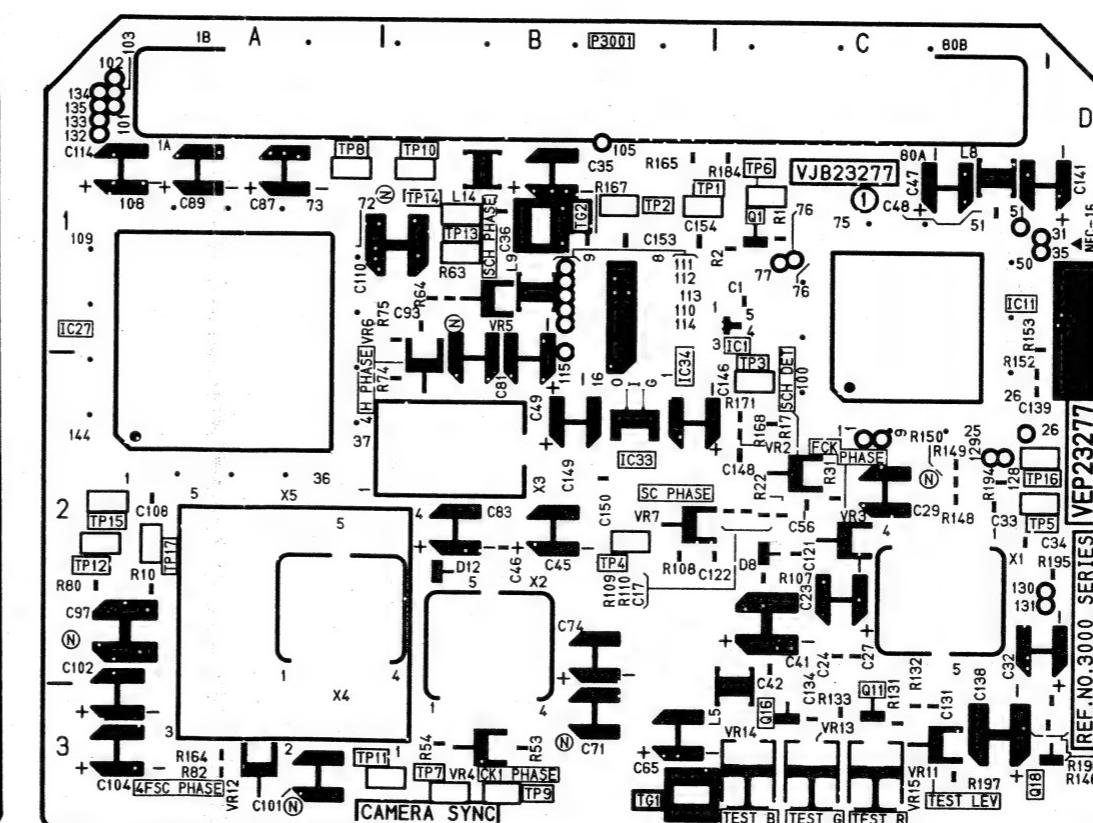
## **CAMERA SYNC P.C. BOARD (VEP23277A)**



(COMPONENT SIDE)



(FIOL SIDE)

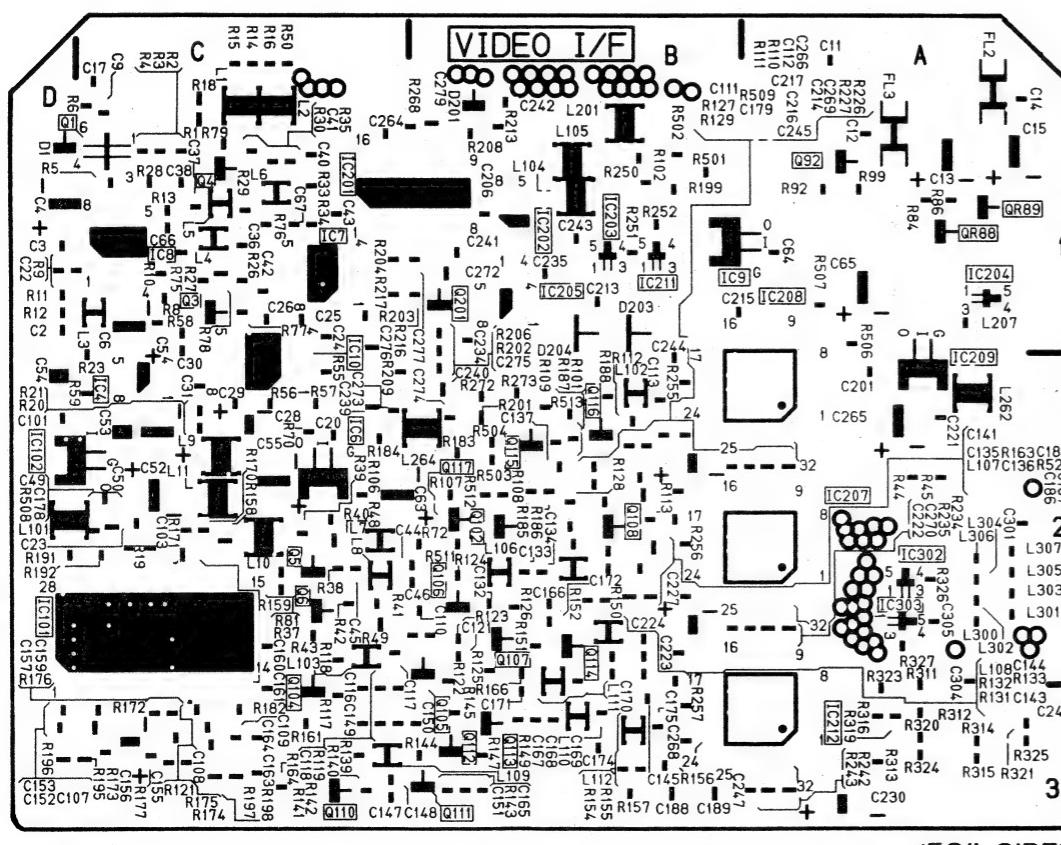


(COMPONENT SIDE)

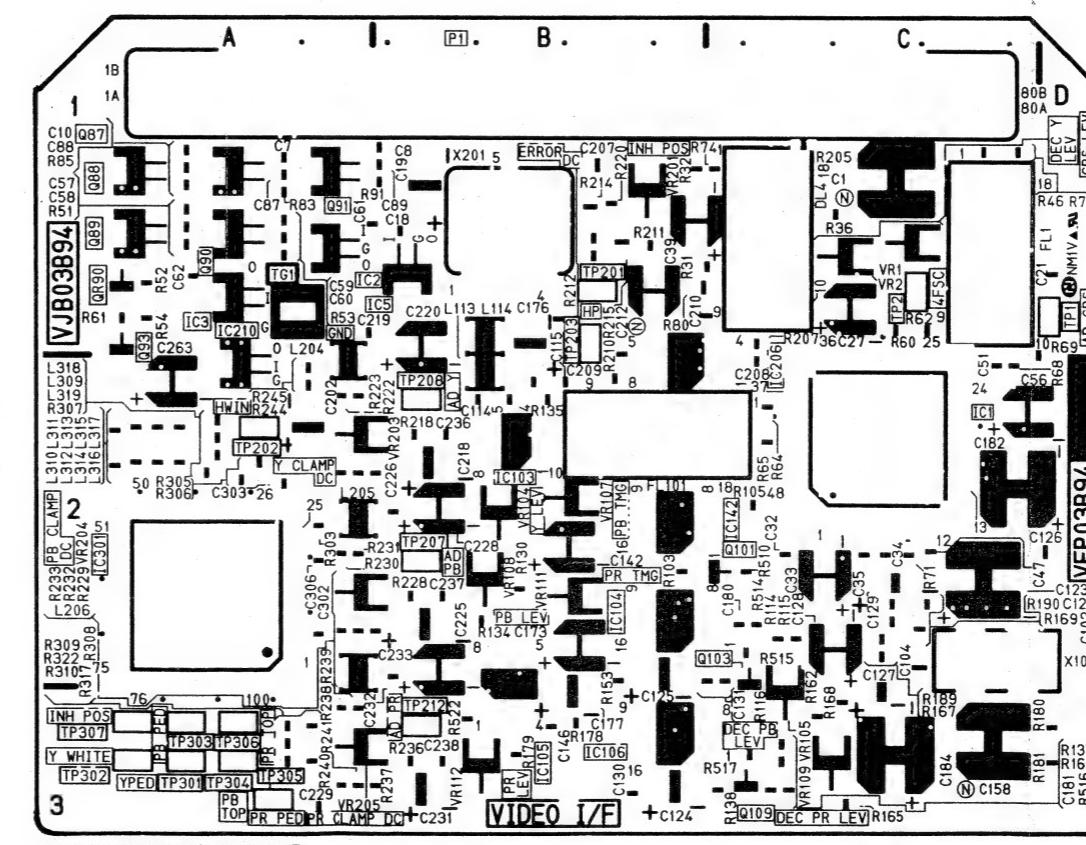
| CAMERA SYNC         |     |             |  |     |   |
|---------------------|-----|-------------|--|-----|---|
| Transistors         |     | IC3033      |  | B-2 | © |
| Q3001               | C-1 | IC3034      |  | B-1 | © |
| Q3002               | A-1 | IC3035      |  | A-2 | © |
| Q3003               | A-2 | IC3036      |  | B-2 | © |
| Q3011               | C-1 | Test Points |  |     |   |
| Q3012               | C-2 | TP3001      |  | B-1 | © |
| Q3013               | C-2 | TP3002      |  | B-1 | © |
| Q3014               | C-3 | TP3003      |  | C-1 | © |
| Q3015               | C-3 | TP3004      |  | B-2 | © |
| Q3016               | C-3 | TP3005      |  | C-2 | © |
| Q3017               | C-3 | TP3006      |  | C-1 | © |
| Q3018               | C-3 | TP3007      |  | B-3 | © |
| Q3023               | C-1 | TP3008      |  | A-1 | © |
| Integrated Circuits |     | TP3009      |  | B-3 | © |
| IC3002              | C-2 | TP3010      |  | B-2 | © |
| IC3003              | A-2 | TP3011      |  | A-3 | © |
| IC3005              | B-2 | TP3012      |  | A-2 | © |
| IC3006              | D-1 | TP3013      |  | B-2 | © |
| IC3007              | C-2 | TP3014      |  | B-2 | © |
| IC3008              | B-1 | TP3015      |  | A-2 | © |
| IC3009              | B-3 | TP3016      |  | C-2 | © |
| IC3010              | C-2 | TP3017      |  | A-2 | © |
| IC3011              | C-2 | TG3001      |  | B-3 | © |
| IC3013              | B-1 | TG3002      |  | B-2 | © |
| IC3014              | C-1 | Adjustments |  |     |   |
| IC3015              | B-1 | VR3002      |  | C-2 | © |
| IC3016              | B-1 | VR3005      |  | B-1 | © |
| IC3017              | B-3 | VR3006      |  | A-1 | © |
| IC3018              | A-2 | VR3007      |  | B-2 | © |
| IC3019              | B-2 | VR3011      |  | C-3 | © |
| IC3020              | A-1 | VR3012      |  | A-3 | © |
| IC3021              | A-1 | VR3013      |  | C-3 | © |
| IC3022              | A-1 | VR3014      |  | C-3 | © |
| IC3023              | A-3 | VR3015      |  | C-3 | © |
| IC3024              | A-3 | Connectors  |  |     |   |
| IC3025              | A-3 | P3001       |  | B-1 | © |
| IC3027              | A-1 |             |  |     |   |
| IC3028              | A-2 |             |  |     |   |
| IC3031              | C-3 |             |  |     |   |
| IC3032              | D-2 |             |  |     |   |

**ADDRESS INFORMATION**

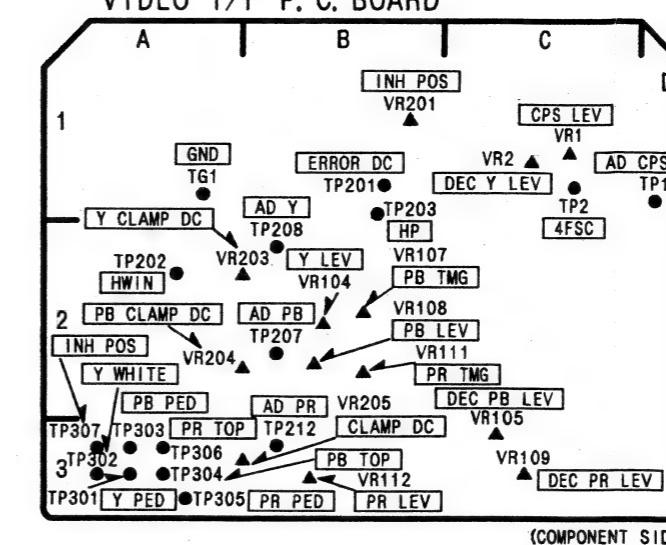
## **VIDEO I/F P.C. BOARD (VEP03B94A)**



(FOIL SIDE)



(COMPONENT SIDE)

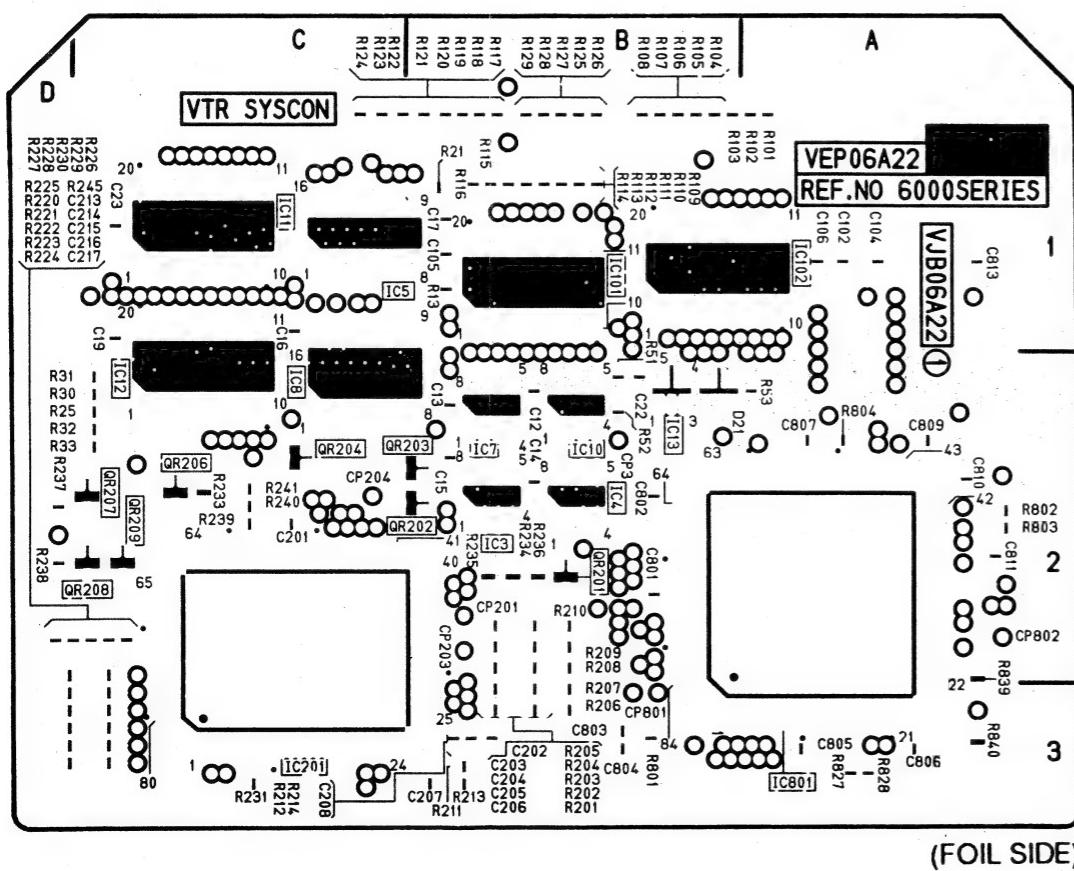


(COMPONENT SIDE

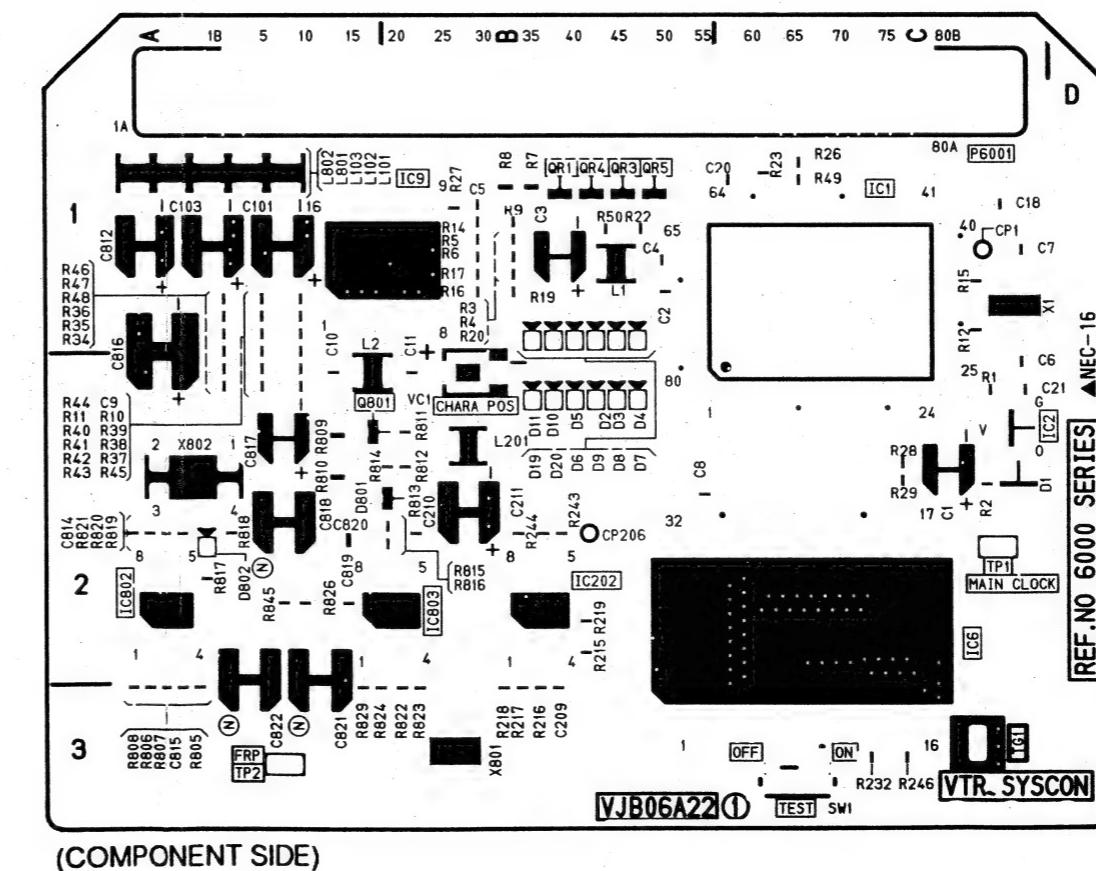
| VIDEO I/F            |     |     |             |         |
|----------------------|-----|-----|-------------|---------|
| Transistors          |     |     | IC104       | C-3 (F) |
| Q1                   | D-1 | (F) | IC105       | B-3 (C) |
| Q3                   | C-1 | (F) | IC106       | B-3 (C) |
| Q4                   | C-1 | (F) | IC142       |         |
| Q5                   | C-2 | (F) | IC201       | C-1 (F) |
| Q6                   | C-2 | (F) | IC202       | B-1 (F) |
| Q7                   |     |     | IC203       | B-1 (F) |
| Q8                   |     |     | IC204       | A-1 (F) |
| Q9                   |     |     | IC205       | B-1 (F) |
| Q87                  | A-1 | (C) | IC206       |         |
| Q88                  | A-1 | (C) | IC207       | A-2 (F) |
| Q89                  | A-1 | (C) | IC208       | A-1 (F) |
| Q90                  | A-1 | (C) | IC209       | A-2 (F) |
| Q91                  | A-1 | (C) | IC211       | B-1 (F) |
| Q92                  | A-1 | (F) | IC212       | A-3 (F) |
| Q93                  | A-1 | (C) | IC301       | A-2 (C) |
| Q101                 | C-2 | (C) | Test Points |         |
| Q102                 | B-2 | (F) | TP1         | D-1 (C) |
| Q103                 | C-2 | (C) | TP2         | C-1 (C) |
| Q104                 | B-2 | (C) | TP201       | B-1 (C) |
| Q105                 | B-3 | (F) | TP202       | A-2 (C) |
| Q106                 | B-2 | (F) | TP203       | B-1 (C) |
| Q107                 | B-2 | (F) | TP207       | B-2 (C) |
| Q108                 | B-2 | (F) | TP208       | B-2 (C) |
| Q109                 | C-3 | (C) | TP212       | B-3 (C) |
| Q110                 | C-3 | (F) | TP301       | A-3 (C) |
| Q111                 | B-3 | (F) | TP302       | A-3 (C) |
| Q112                 | B-3 | (F) | TP303       | A-3 (C) |
| Q113                 | B-3 | (F) | TP304       | A-3 (C) |
| Q114                 | B-2 | (F) | TP305       | A-3 (C) |
| Q115                 | B-2 | (F) | TP306       | A-3 (C) |
| Q116                 | B-2 | (F) | TP307       | A-3 (C) |
| Q201                 | B-1 | (F) | TG1         | A-1 (C) |
| Transistor-Resistors |     |     | Adjustments |         |
| QR88                 | A-1 | (F) | VR1         | C-1 (C) |
| QR89                 | A-1 | (F) | VR2         | C-1 (C) |
| QR90                 | A-1 | (C) | VR104       | B-2 (C) |
| Integrated Circuits  |     |     | VR105       | C-3 (C) |
| IC1                  | C-2 | (C) | VR107       | B-2 (C) |
| IC4                  | C-2 | (F) | VR108       | B-2 (C) |
| IC5                  | B-1 | (C) | VR109       | C-3 (C) |
| IC6                  | B-2 | (F) | VR111       | B-2 (C) |
| IC7                  | B-1 | (F) | VR112       | B-3 (C) |
| IC8                  | C-1 | (F) | VR201       | B-1 (C) |
| IC10                 | B-2 | (F) | Connectors  |         |
| IC101                | D-2 | (F) | P1          | B-1 (C) |
| IC102                | D-2 | (F) |             |         |
| IC103                | B-2 | (C) |             |         |

**ADDRESS INFORMATION**

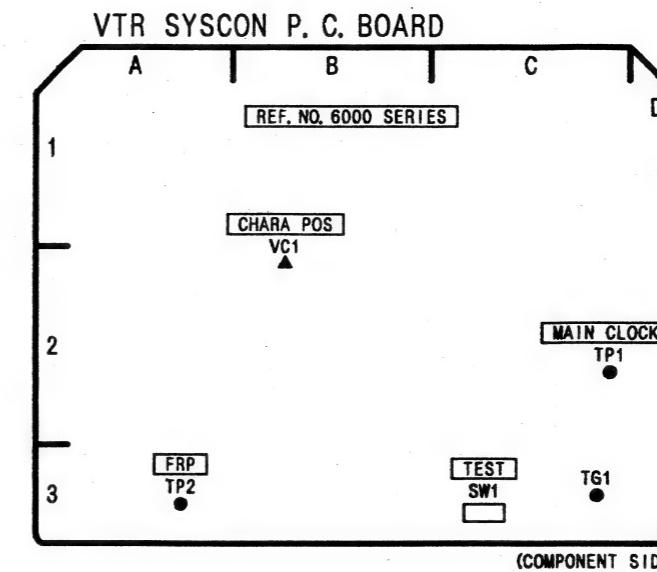
# VTR SYSCON P.C. BOARD (VEP06A22A)



(FOIL SIDE)



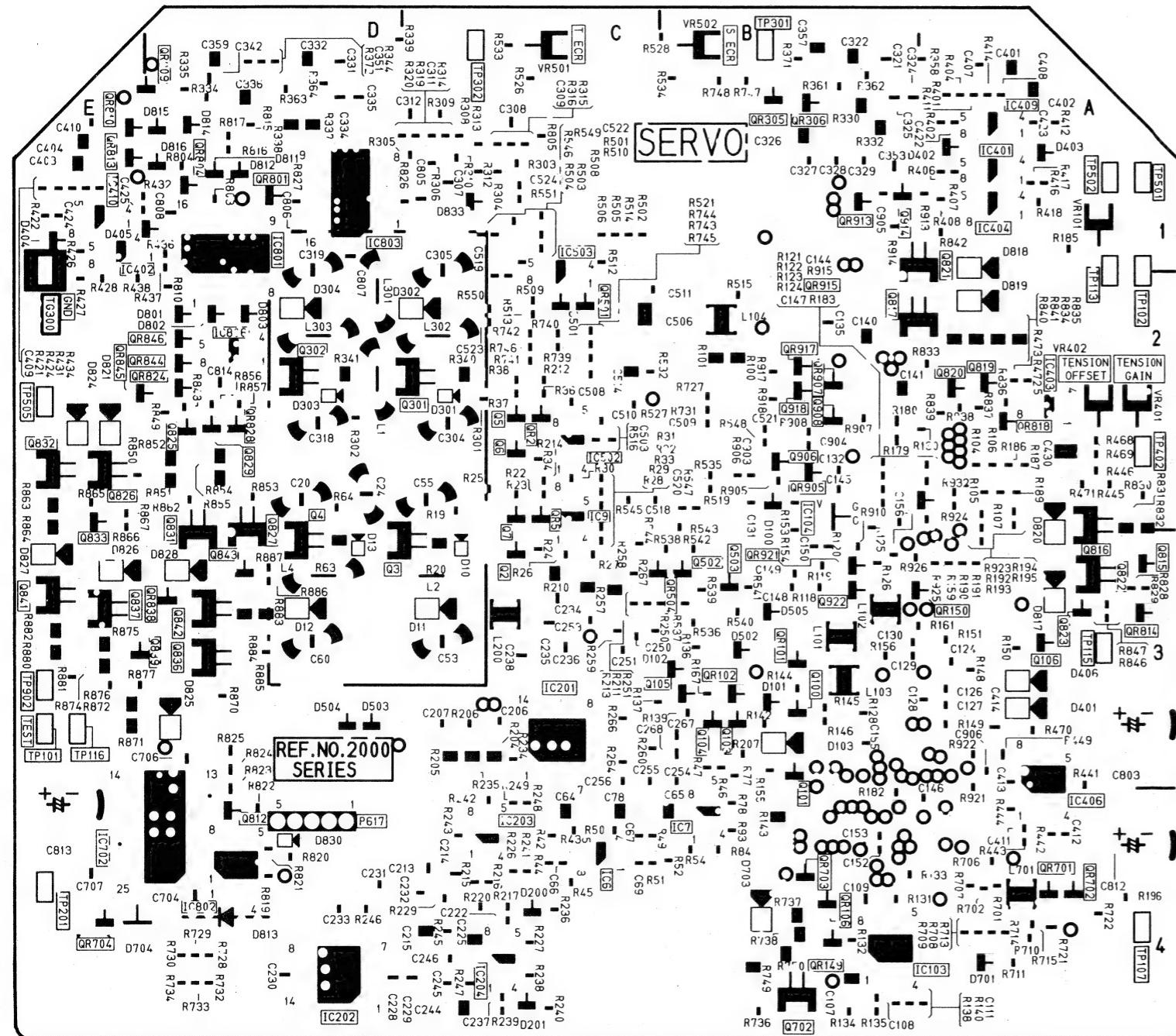
(COMPONENT SIDE)



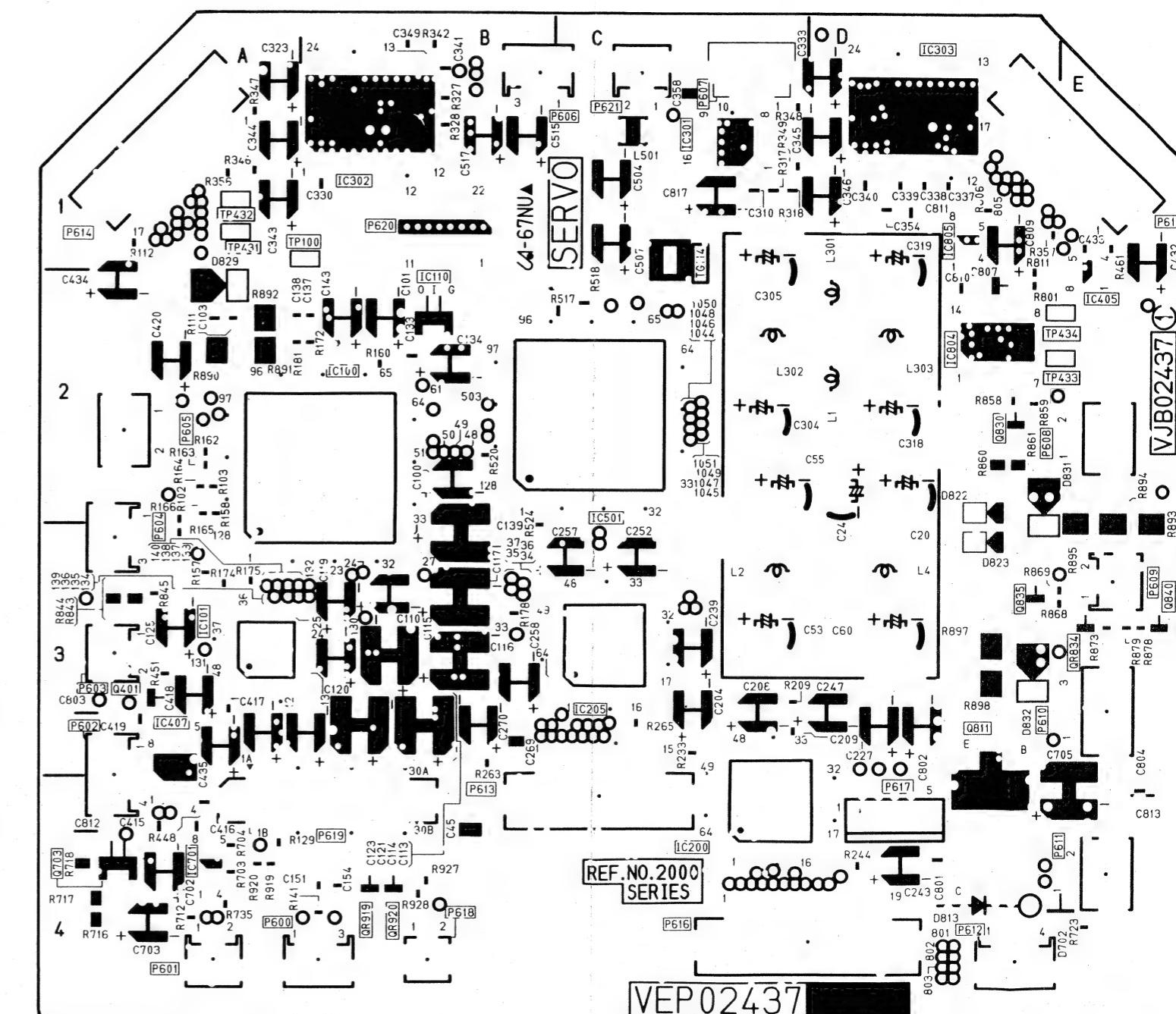
| VTR SYSCON           |       |
|----------------------|-------|
| Transistors          |       |
| Q6801                | A-2 © |
| Transistor-Resistors |       |
| QR6001               | B-1 © |
| QR6003               | B-1 © |
| QR6004               | B-1 © |
| QR6005               | B-1 © |
| QR6201               | B-2 © |
| QR6202               | B-2 © |
| QR6203               | B-2 © |
| QR6204               | C-2 © |
| QR6206               | C-2 © |
| QR6207               | C-2 © |
| QR6208               | C-2 © |
| QR6209               | C-2 © |
| Integrated Circuits  |       |
| IC6001               | C-1 © |
| IC6002               | D-2 © |
| IC6003               | B-2 © |
| IC6004               | B-2 © |
| IC6005               | C-1 © |
| IC6006               | C-2 © |
| IC6007               | B-2 © |
| IC6008               | C-2 © |
| IC6009               | B-1 © |
| IC6010               | B-2 © |
| IC6011               | C-1 © |
| IC6012               | C-2 © |
| IC6013               | B-2 © |
| IC6101               | B-1 © |
| IC6102               | A-1 © |
| IC6201               | C-3 © |
| IC6202               | B-2 © |
| IC6801               | A-3 © |
| IC6802               | B-2 © |
| IC6803               | B-2 © |
| Test Points          |       |
| TP6001               | C-2 © |
| TP6002               | A-3 © |
| TG6001               | C-3 © |
| Adjustments          |       |
| VC6001               | B-2 © |
| Switches             |       |
| SW6001               | C-3 © |
| Connectors           |       |
| P6001                | C-1 © |

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## **SERVO P.C. BOARD (VEP02437A)**

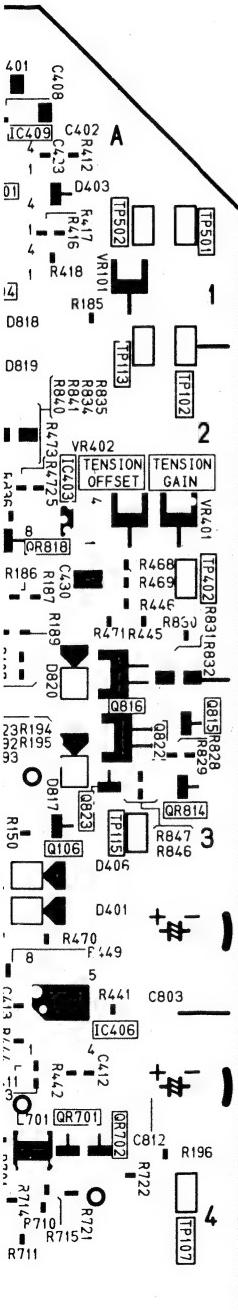


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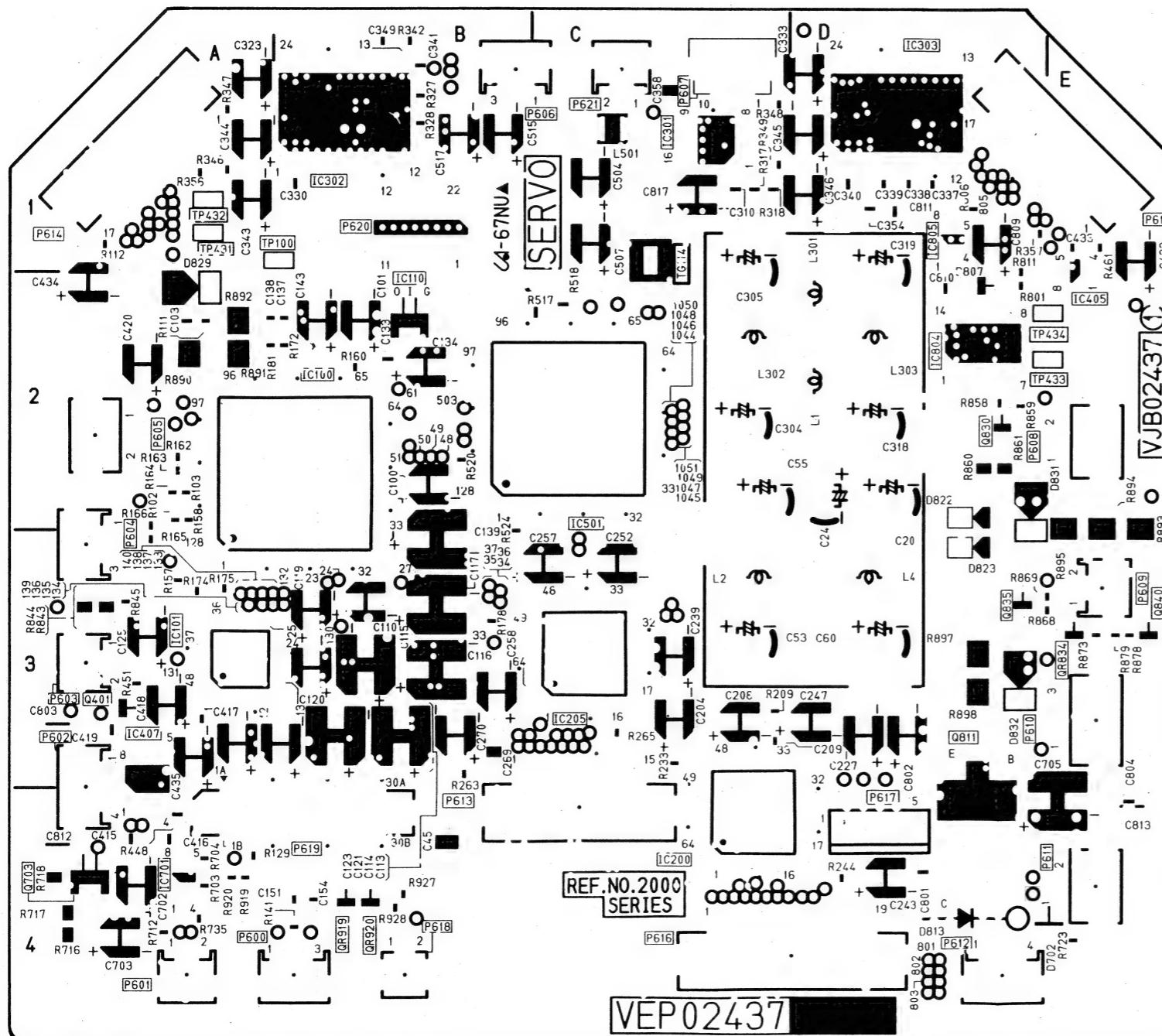


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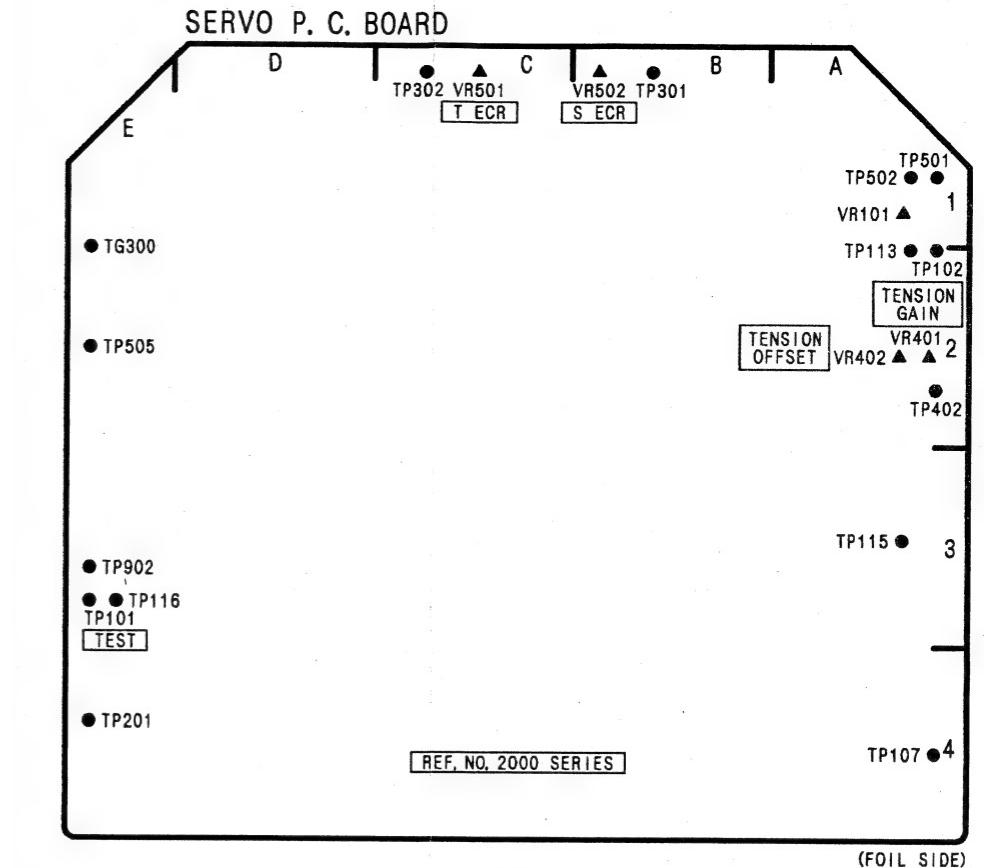




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(COMPONENT SIDE)



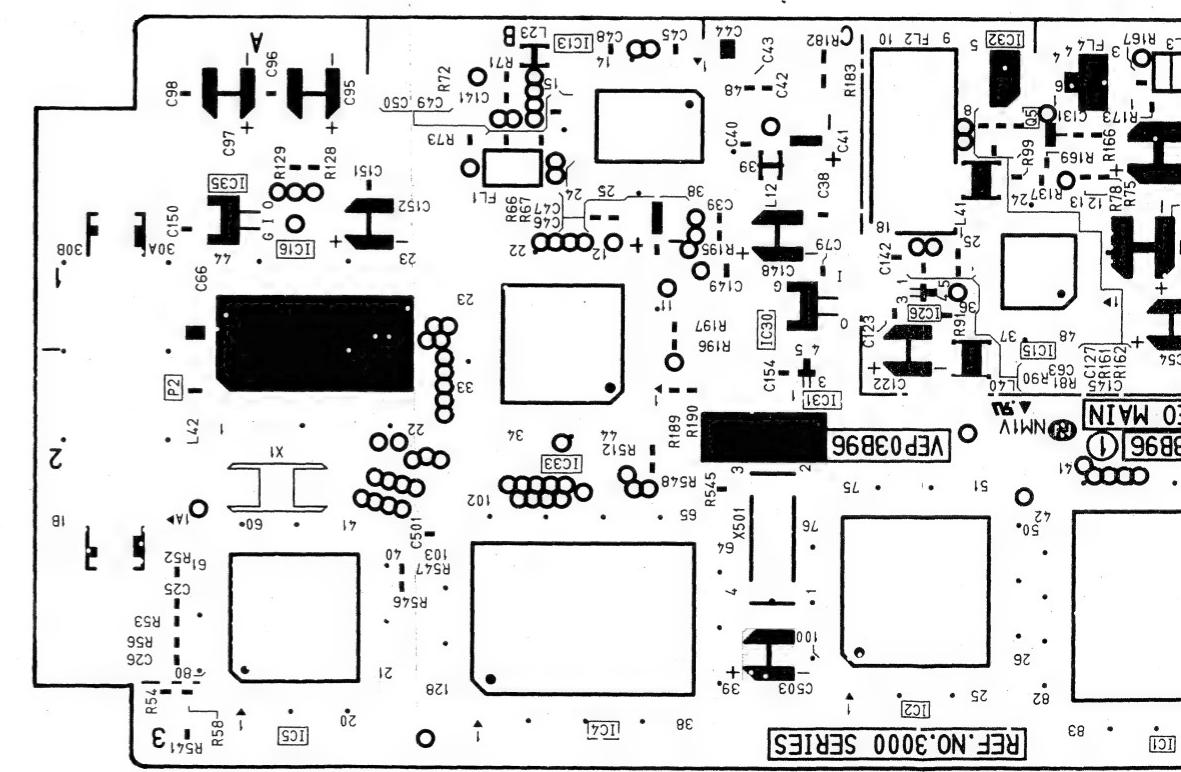
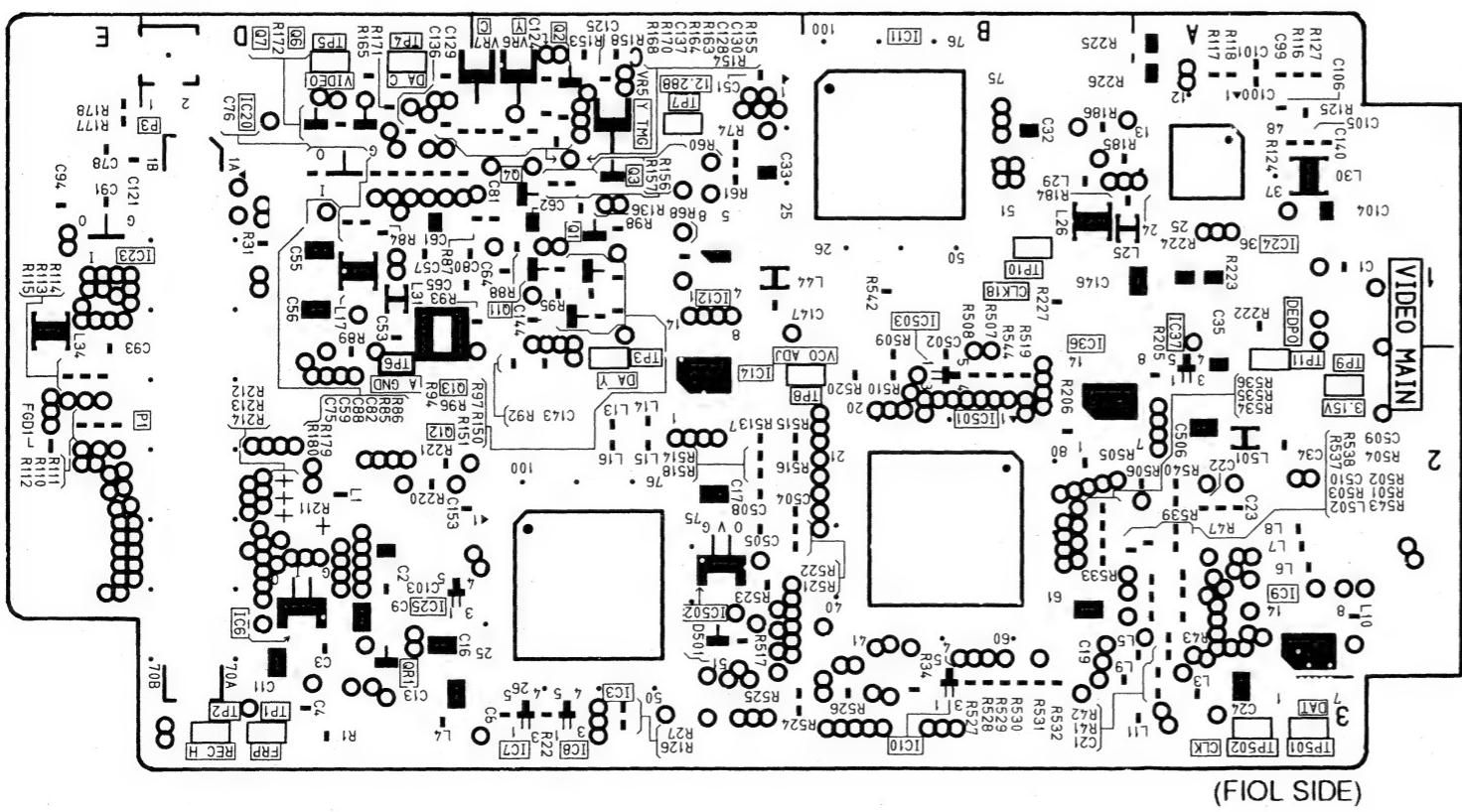
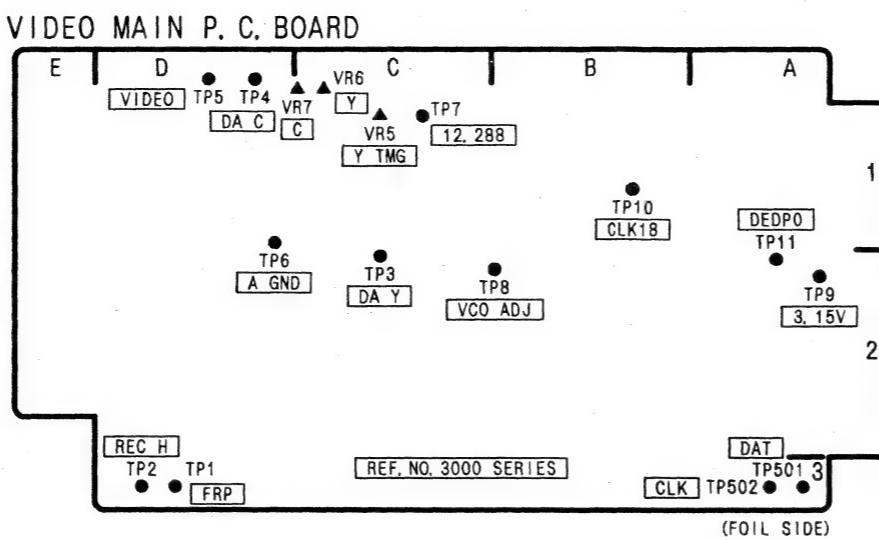
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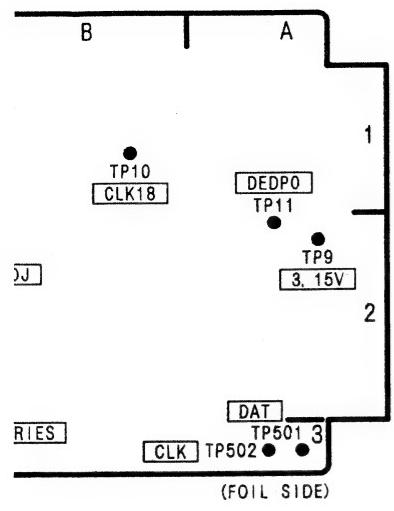
| SERVO       |  |                      |         |             |         |             |         |         |
|-------------|--|----------------------|---------|-------------|---------|-------------|---------|---------|
| Transistors |  | Q906                 | B-2 (F) | IC101       | A-3 (C) | TP431       | A-1 (C) |         |
| Q2          |  | Q908                 | B-2 (F) | IC103       | A-4 (F) | TP432       | A-1 (C) |         |
| Q3          |  | Q914                 | B-1 (F) | IC104       | B-2 (F) | TP433       | E-2 (C) |         |
| Q4          |  | Q918                 | B-2 (F) | IC110       | B-2 (C) | TP434       | E-2 (C) |         |
| Q5          |  | Q922                 | B-3 (F) | IC200       | C-4 (C) | TP501       | A-1 (F) |         |
| Q6          |  | Transistor-Resistors |         | IC201       | C-3 (F) | TP502       | A-1 (F) |         |
| Q7          |  | QR2                  | C-2 (F) | IC202       | D-4 (F) | TP505       | E-2 (F) |         |
| Q100        |  | QR5                  | C-2 (F) | IC203       | C-4 (F) | TP902       | E-3 (F) |         |
| Q101        |  | QR101                | B-3 (F) | IC204       | C-4 (F) | TG114       | C-1 (C) |         |
| Q103        |  | QR102                | B-3 (F) | IC205       | C-3 (C) | TG300       | E-2 (F) |         |
| Q104        |  | QR106                | B-4 (F) | IC301       | C-1 (C) | Adjustments |         |         |
| Q105        |  | QR149                | B-4 (F) | IC302       | B-1 (C) | VR100       |         |         |
| Q106        |  | QR150                | A-3 (F) | IC401       | A-1 (F) | VR101       | A-1 (F) |         |
| Q301        |  | QR501                | C-2 (F) | IC402       |         |             | VR401   | A-2 (F) |
| Q302        |  | QR701                | A-4 (F) | IC403       | A-2 (F) | VR402       | A-2 (F) |         |
| Q401        |  | QR702                | A-4 (F) | IC404       | A-1 (F) | VR501       | C-1 (F) |         |
| Q702        |  | QR703                | B-4 (F) | IC405       | E-2 (F) | VR502       | B-1 (F) |         |
| Q703        |  | QR801                | D-1 (F) | IC406       | A-4 (F) | Connectors  |         |         |
| Q811        |  | QR804                | D-1 (F) | IC407       | A-3 (C) | P600        | A-4 (C) |         |
| Q812        |  | QR809                | D-1 (F) | IC409       | A-1 (F) | P601        | A-4 (C) |         |
| Q815        |  | QR810                | E-1 (F) | IC410       | E-1 (F) | P602        | A-3 (C) |         |
| Q816        |  | QR813                | E-1 (F) | IC502       | C-2 (F) | P603        | A-3 (C) |         |
| Q817        |  | QR814                | A-3 (F) | IC503       | C-1 (F) | P604        | A-3 (C) |         |
| Q819        |  | QR818                | A-2 (F) | IC701       | A-4 (C) | P605        | A-2 (C) |         |
| Q820        |  | QR824                | E-2 (F) | IC702       | E-4 (F) | P606        | C-1 (C) |         |
| Q821        |  | QR828                | D-2 (F) | IC801       | D-1 (F) | P607        | C-1 (C) |         |
| Q822        |  | QR834                | E-3 (C) | IC802       | D-4 (F) | P608        | D-2 (C) |         |
| Q823        |  | QR838                | E-3 (F) | IC803       | D-1 (F) | P609        | E-3 (C) |         |
| Q825        |  | QR844                | E-2 (F) | IC804       | D-2 (C) | P610        | D-3 (C) |         |
| Q826        |  | QR845                | E-2 (F) | IC805       | D-1 (C) | P611        | E-4 (C) |         |
| Q827        |  | QR846                | E-2 (F) | IC806       | D-2 (F) | P612        | D-4 (C) |         |
| Q829        |  | QR905                | B-2 (F) | Test Points |         | P613        | B-4 (C) |         |
| Q830        |  | QR907                | B-2 (F) | TP100       | B-1 (C) | P614        | A-1 (C) |         |
| Q831        |  | QR913                | B-1 (F) | TP101       | E-3 (F) | P615        | E-1 (C) |         |
| Q832        |  | QR915                | B-2 (F) | TP102       | A-2 (F) | P616        | C-4 (C) |         |
| Q833        |  | QR917                | B-2 (F) | TP107       | A-4 (F) | P617        | D-4 (C) |         |
| Q835        |  | QR919                | B-4 (C) | TP113       | A-2 (F) | P618        | B-4 (C) |         |
| Q836        |  | QR920                | B-4 (C) | TP115       | A-3 (F) | P619        | B-4 (C) |         |
| Q837        |  | QR921                | B-3 (F) | TP116       | E-3 (F) | P620        | B-1 (C) |         |
| Q839        |  | Integrated Circuit   |         | TP201       | E-4 (F) | P621        | C-1 (C) |         |
| Q840        |  | IC6                  | C-4 (F) | TP301       | B-1 (F) |             |         |         |
| Q841        |  | IC7                  | B-4 (F) | TP302       | C-1 (F) |             |         |         |
| Q842        |  | IC9                  | C-2 (F) | TP402       | A-2 (F) |             |         |         |
| Q843        |  |                      |         |             |         |             |         |         |

**ADDRESS INFORMATION**



## VIDEO MAIN P.C. BOARD (VEP03B96A)

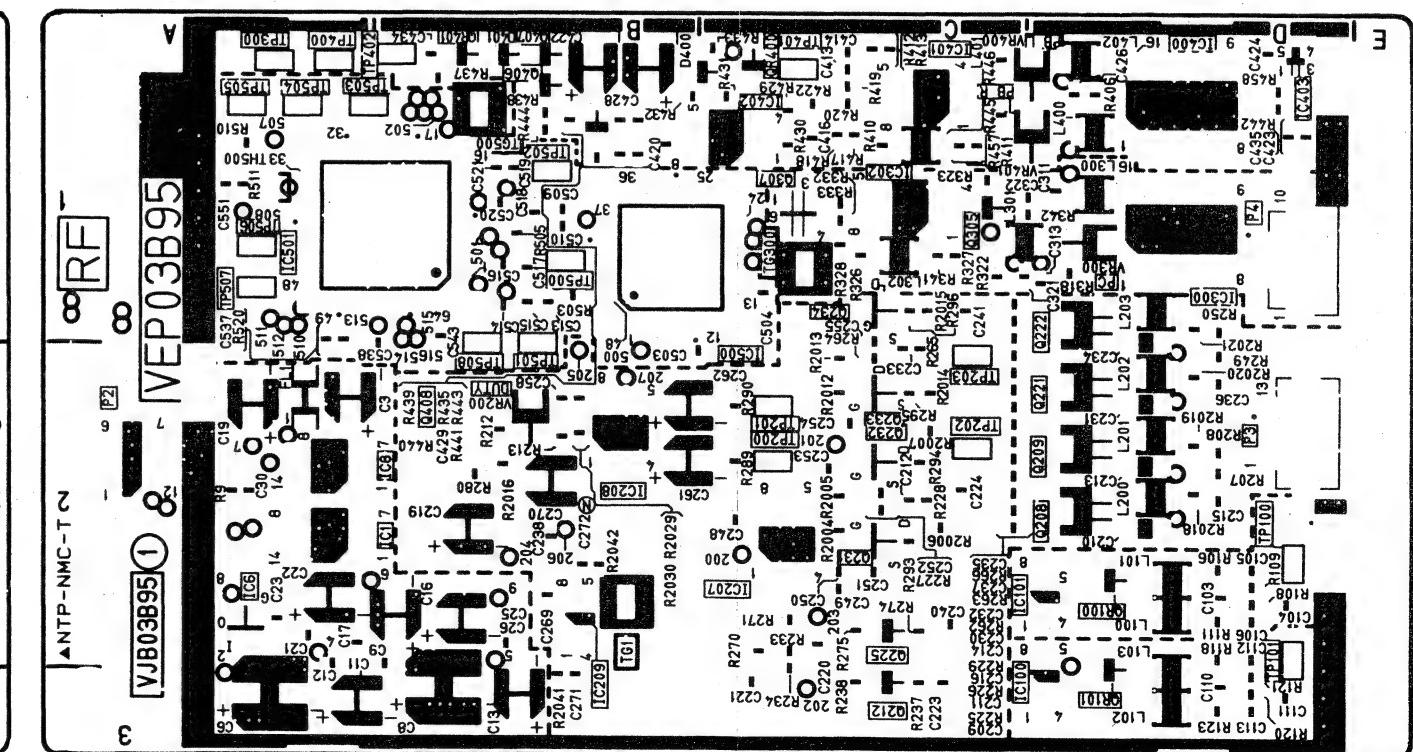
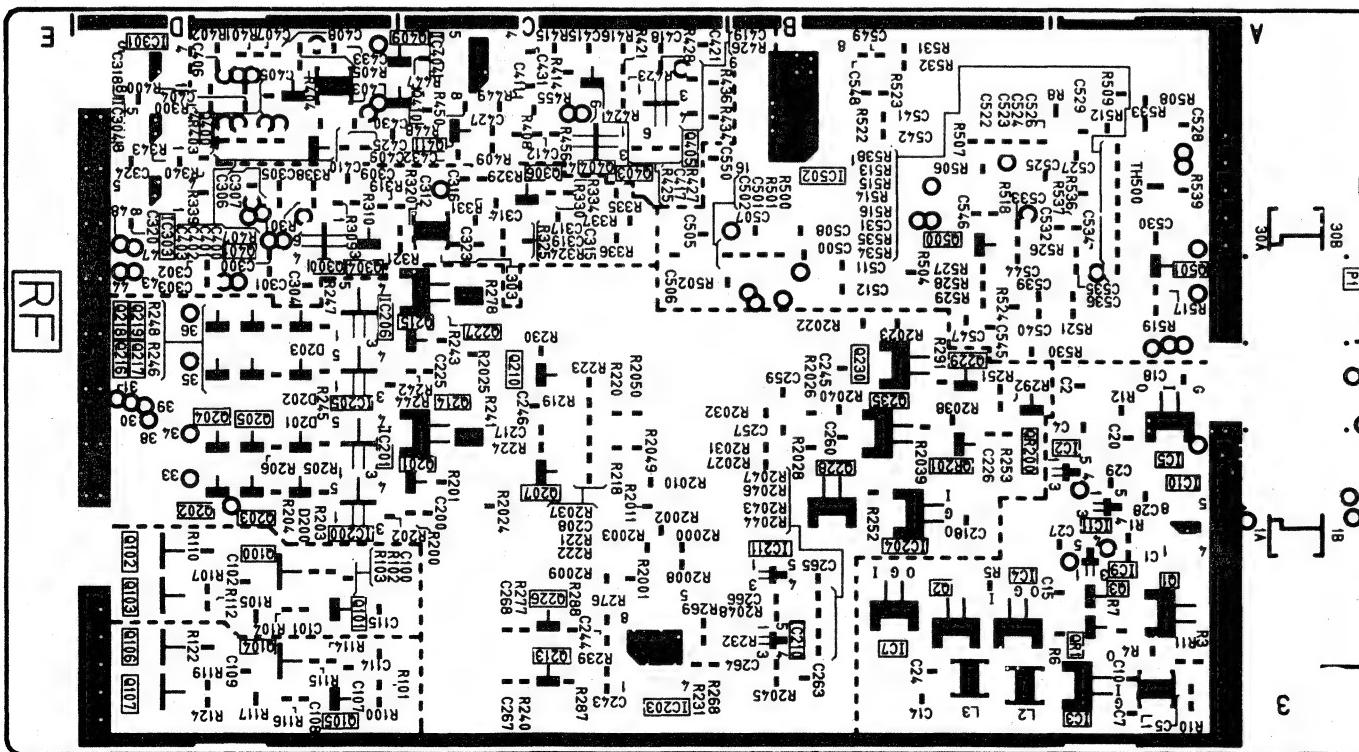




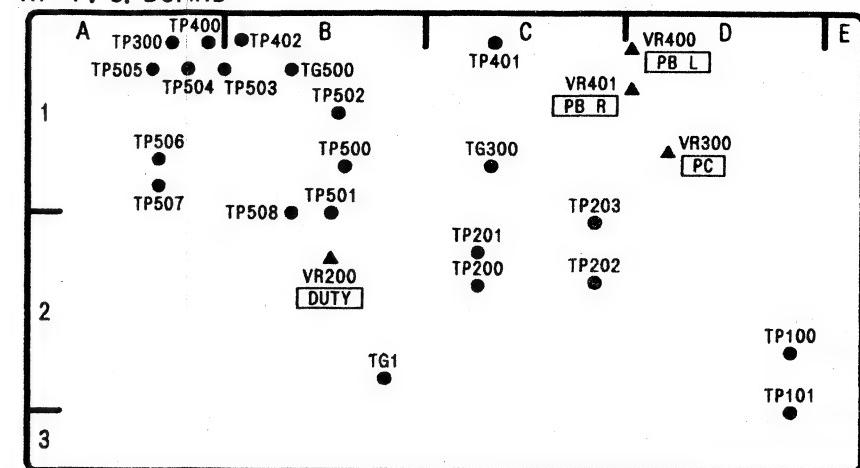
# RF P.C. BOARD (VEP03B95A)

| Transistors |         | RF    |         | Test Points |         |
|-------------|---------|-------|---------|-------------|---------|
| Q1          | A-2 (f) | Q226  | C-2 (f) | TP100       | D-2 (c) |
| Q2          | B-2 (f) | Q227  | C-1 (f) | TP101       | D-2 (c) |
| Q3          | A-2 (c) | Q228  | B-2 (f) | TP200       | C-2 (c) |
| Q100        | D-2 (f) | Q229  | B-2 (f) | TP201       | C-2 (c) |
| Q101        | D-2 (f) | Q230  | B-2 (f) | TP202       | C-2 (c) |
| Q102        | D-2 (f) | Q231  | C-2 (c) | TP203       | C-2 (c) |
| Q103        | D-2 (f) | Q232  | C-2 (c) | TP300       | A-1 (c) |
| Q104        | D-2 (f) | Q233  | C-1 (c) | TP400       | A-1 (c) |
| Q105        | D-2 (f) | Q234  | C-1 (c) | TP401       | C-1 (c) |
| Q106        | D-2 (f) | Q235  | B-2 (f) | TP402       | A-1 (c) |
| Q107        | D-3 (f) | Q300  | D-1 (f) | TP500       | B-1 (c) |
| Q201        | C-2 (f) | Q304  | D-1 (f) | TP501       | B-2 (c) |
| Q202        | D-2 (f) | Q305  | C-1 (c) | TP502       | B-1 (c) |
| Q203        | D-2 (f) | Q306  | C-1 (c) | TP503       | A-1 (c) |
| Q204        | D-2 (f) | Q307  | C-1 (c) | TP504       | A-1 (c) |
| Q205        | D-2 (f) | Q400  | D-1 (f) | TP505       | A-1 (c) |
| Q207        | C-2 (f) | Q401  | D-1 (f) | TP506       | A-1 (c) |
| Q208        | D-2 (c) | Q403  | C-1 (f) | TP507       | A-1 (c) |
| Q209        | D-2 (c) | Q404  | C-1 (f) | TP508       | B-2 (c) |
| Q210        | C-2 (f) | Q405  | C-1 (f) | TG1         | B-1 (c) |
| Q211        | C-3 (c) | Q406  | B-1 (c) | TG300       | C-1 (c) |
| Q212        | C-2 (f) | Q407  | B-1 (c) | TG500       | B-1 (c) |
| Q213        | C-2 (f) | Q408  | B-2 (c) |             |         |
| Q214        | C-2 (f) | Q409  | C-1 (f) |             |         |
| Q215        | C-1 (f) | Q410  | C-1 (f) |             |         |
| Q216        | D-2 (f) | Q411  | C-1 (f) |             |         |
| Q217        | D-2 (f) | Q500  | B-1 (f) |             |         |
| Q218        | D-1 (f) | Q501  | A-1 (f) |             |         |
| Q219        | D-1 (f) | QR1   | A-2 (c) |             |         |
| Q221        | D-2 (c) | QR100 | D-2 (c) |             |         |
| Q222        | D-1 (c) | QR101 | D-3 (c) |             |         |
| Q224        | D-1 (c) | QR200 | B-2 (f) |             |         |
| Q225        | C-2 (c) | QR201 | B-2 (f) |             |         |

ADDRESS INFORMATION  
 (c) ... COMPONENT SIDE  
 (f) ... FOIL SIDE



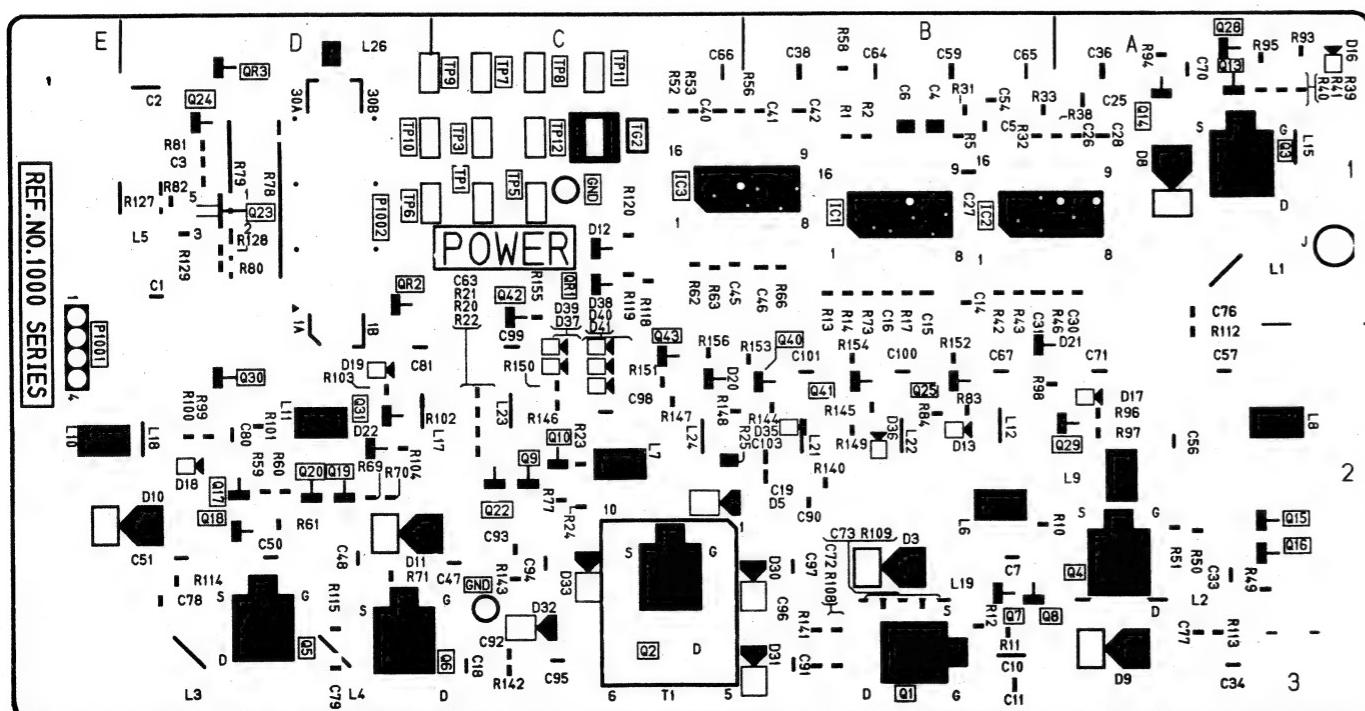
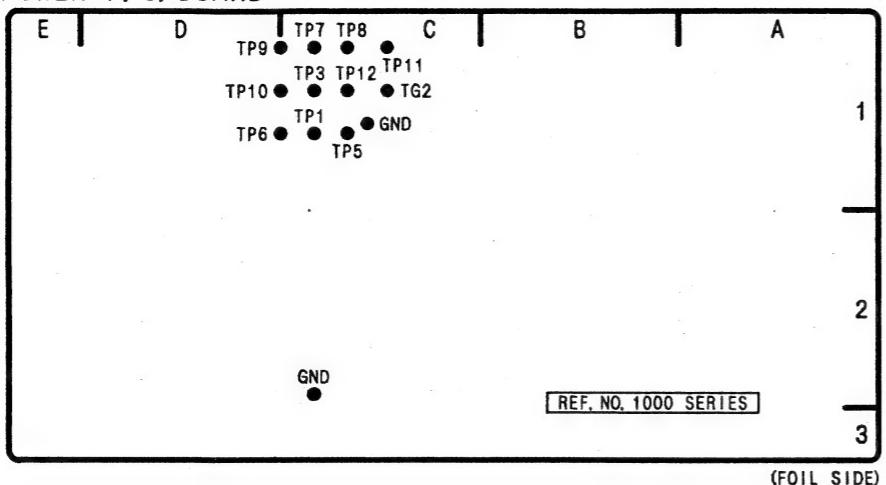
## RF P.C. BOARD



(COMPONENT SIDE)

# POWER P.C. BOARD (VEP01643A)

POWER P. C. BOARD



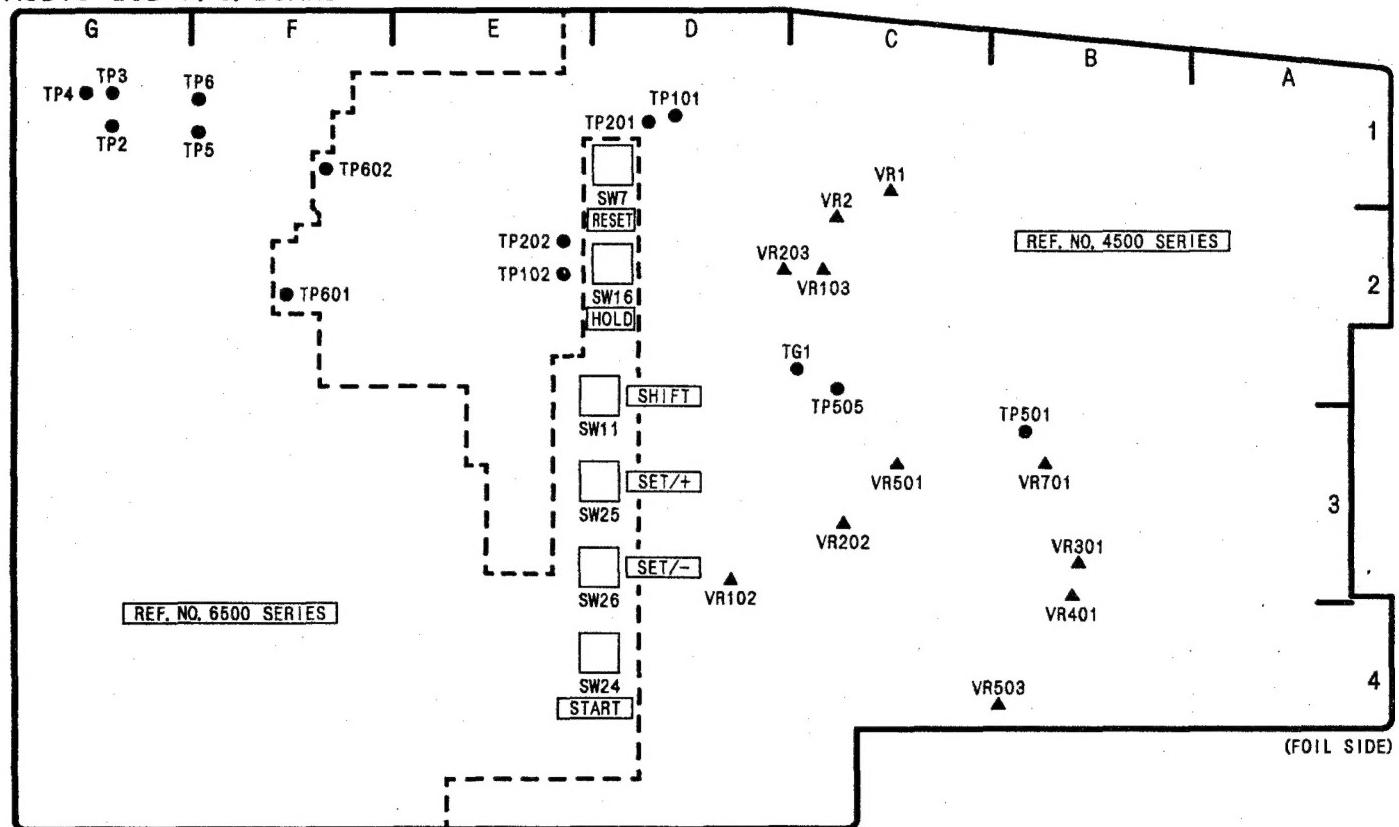
| POWER                       |       |
|-----------------------------|-------|
| <b>Transistors</b>          |       |
| Q1001                       | B-3 Ⓛ |
| Q1002                       | C-3 Ⓛ |
| Q1003                       | A-1 Ⓛ |
| Q1004                       | A-2 Ⓛ |
| Q1005                       | D-3 Ⓛ |
| Q1006                       | C-3 Ⓛ |
| Q1007                       | B-2 Ⓛ |
| Q1008                       | B-2 Ⓛ |
| Q1009                       | C-2 Ⓛ |
| Q1010                       | C-2 Ⓛ |
| Q1013                       | A-1 Ⓛ |
| Q1014                       | A-1 Ⓛ |
| Q1015                       | A-2 Ⓛ |
| Q1016                       | A-2 Ⓛ |
| Q1017                       | D-2 Ⓛ |
| Q1018                       | D-2 Ⓛ |
| Q1019                       | D-2 Ⓛ |
| Q1020                       | D-2 Ⓛ |
| Q1022                       | C-2 Ⓛ |
| Q1023                       | D-1 Ⓛ |
| Q1024                       | D-1 Ⓛ |
| Q1025                       | B-2 Ⓛ |
| Q1028                       | A-1 Ⓛ |
| Q1029                       | A-2 Ⓛ |
| Q1030                       | D-2 Ⓛ |
| Q1031                       | D-2 Ⓛ |
| Q1040                       | B-2 Ⓛ |
| Q1041                       | B-2 Ⓛ |
| Q1042                       | C-1 Ⓛ |
| Q1043                       | C-2 Ⓛ |
| <b>Transistor-Resistors</b> |       |
| QR1001                      | C-1 Ⓛ |
| QR1002                      | D-1 Ⓛ |
| QR1003                      | D-1 Ⓛ |
| <b>Integrated Circuit</b>   |       |
| IC1001                      | C-1 Ⓛ |
| IC1002                      | B-1 Ⓛ |
| IC1003                      | B-1 Ⓛ |
| <b>Test Points</b>          |       |
| TP1                         | C-1 Ⓛ |
| TP3                         | C-1 Ⓛ |
| TP5                         | C-1 Ⓛ |
| TP6                         | D-1 Ⓛ |
| TP7                         | C-1 Ⓛ |
| TP8                         | C-1 Ⓛ |
| TP9                         | C-1 Ⓛ |
| TP10                        | D-1 Ⓛ |
| TP11                        | C-1 Ⓛ |
| TP12                        | C-1 Ⓛ |
| TG1001                      | C-1 Ⓛ |
| TG1002                      | C-1 Ⓛ |
| <b>Adjustments</b>          |       |
| VR1001                      | B-1 Ⓛ |
| VR1002                      | B-1 Ⓛ |
| VR1003                      | A-1 Ⓛ |
| VR1004                      | B-1 Ⓛ |
| VR1005                      | B-1 Ⓛ |
| VR1006                      | C-1 Ⓛ |
| <b>Connectors</b>           |       |
| P1001                       | E-1   |
| P1002                       | D-1 Ⓛ |

| AUDIO LCD                   |                    |
|-----------------------------|--------------------|
| <b>Transistors</b>          | <b>Transistors</b> |
| Q4001                       | C-2 Ⓛ              |
| Q4002                       | A-4 Ⓛ              |
| Q4003                       | A-4 Ⓛ              |
| Q4004                       | C-1 Ⓛ              |
| Q4007                       | B-1 Ⓛ              |
| Q4008                       | A-2 Ⓛ              |
| Q4009                       | A-2 Ⓛ              |
| Q4010                       | A-1 Ⓛ              |
| Q4101                       | D-4 Ⓛ              |
| Q4102                       | D-4 Ⓛ              |
| Q4103                       | D-4 Ⓛ              |
| Q4107                       | D-2 Ⓛ              |
| Q4110                       | A-2 Ⓛ              |
| Q4111                       | B-2 Ⓛ              |
| Q4201                       | C-4 Ⓛ              |
| Q4202                       | C-3 Ⓛ              |
| Q4203                       | C-3 Ⓛ              |
| Q4207                       | D-2 Ⓛ              |
| Q4210                       | A-2 Ⓛ              |
| Q4211                       | A-2 Ⓛ              |
| Q4302                       | B-4 Ⓛ              |
| Q4305                       | C-4 Ⓛ              |
| Q4306                       | D-4 Ⓛ              |
| Q4307                       | D-4 Ⓛ              |
| Q4402                       | A-4 Ⓛ              |
| Q4405                       | C-3 Ⓛ              |
| Q4406                       | C-3 Ⓛ              |
| Q4407                       | C-4 Ⓛ              |
| Q4702                       | B-3 Ⓛ              |
| Q4703                       | A-3 Ⓛ              |
| Q4704                       | B-3 Ⓛ              |
| Q4705                       | B-3 Ⓛ              |
| Q6501                       | E-3 Ⓛ              |
| Q6502                       | E-3 Ⓛ              |
| Q6503                       | F-1 Ⓛ              |
| <b>Integrated Circuits</b>  |                    |
| IC4001                      | B-2 Ⓛ              |
| IC4002                      | C-2 Ⓛ              |
| IC4003                      | E-1 Ⓛ              |
| IC4004                      | B-2 Ⓛ              |
| IC4005                      | D-3 Ⓛ              |
| IC4006                      | C-1 Ⓛ              |
| IC4007                      | D-1 Ⓛ              |
| IC4008                      | D-1 Ⓛ              |
| IC4009                      | C-2 Ⓛ              |
| IC4010                      | C-1 Ⓛ              |
| IC4011                      | B-1 Ⓛ              |
| IC4012                      | B-1 Ⓛ              |
| IC4013                      | A-1 Ⓛ              |
| IC4014                      | D-1 Ⓛ              |
| IC4015                      | C-2 Ⓛ              |
| IC4016                      | D-2 Ⓛ              |
| IC4017                      | B-4 Ⓛ              |
| IC4102                      | D-2 Ⓛ              |
| IC4103                      | D-4 Ⓛ              |
| IC4105                      | D-3 Ⓛ              |
| IC4202                      | D-2 Ⓛ              |
| IC4203                      | D-3 Ⓛ              |
| IC4205                      | C-3 Ⓛ              |
| IC4501                      | C-2 Ⓛ              |
| IC4502                      | B-4 Ⓛ              |
| IC4503                      | C-3 Ⓛ              |
| IC4602                      | E-2 Ⓛ              |
| IC4603                      | E-2 Ⓛ              |
| IC4701                      | B-3 Ⓛ              |
| IC4702                      | B-3 Ⓛ              |
| IC4703                      | C-4 Ⓛ              |
| IC4704                      | A-2 Ⓛ              |
| IC4708                      | B-1 Ⓛ              |
| IC4801                      | D-2 Ⓛ              |
| IC4802                      | D-2 Ⓛ              |
| IC4803                      | D-2 Ⓛ              |
| IC4804                      | D-2 Ⓛ              |
| IC4805                      | D-2 Ⓛ              |
| <b>Transistor-Resistors</b> |                    |
| QR4001                      | A-2 Ⓛ              |
| QR4006                      | A-1 Ⓛ              |
| QR4007                      | A-1 Ⓛ              |
| QR4010                      | D-1 Ⓛ              |
| QR4012                      | B-1 Ⓛ              |
| QR4013                      | B-1 Ⓛ              |
| QR4102                      | D-2 Ⓛ              |
| QR4103                      | B-1 Ⓛ              |
| QR4104                      | B-1 Ⓛ              |
| QR4105                      | B-2 Ⓛ              |
| QR4106                      | B-2 Ⓛ              |
| QR4107                      | B-1 Ⓛ              |
| QR4108                      | B-1 Ⓛ              |
| QR4201                      | D-2 Ⓛ              |
| QR4202                      | D-2 Ⓛ              |
| QR4203                      | A-3 Ⓛ              |
| QR4204                      | A-3 Ⓛ              |
| QR4205                      | A-3 Ⓛ              |
| QR4206                      | B-2 Ⓛ              |
| QR4207                      | A-1 Ⓛ              |
| <b>Switches</b>             |                    |
| SW4701                      | G-1 Ⓛ              |
| SW6501                      | G-1 Ⓛ              |
| SW6502                      | G-1 Ⓛ              |
| SW6503                      | E-4 Ⓛ              |
| SW6504                      | G-2 Ⓛ              |
| SW6505                      | G-3 Ⓛ              |
| SW6506                      | G-4 Ⓛ              |
| SW6507                      | D-1 Ⓛ              |
| SW6508                      | F-3 Ⓛ              |
| SW6509                      | F-3 Ⓛ              |
| SW6510                      | E-3 Ⓛ              |
| SW6511                      | D-3 Ⓛ              |
| SW6512                      | F-4 Ⓛ              |
| SW6514                      | F-4 Ⓛ              |
| SW6516                      | D-2 Ⓛ              |
| SW6524                      | D-4 Ⓛ              |
| SW6525                      | D-3 Ⓛ              |
| SW6526                      | D-3 Ⓛ              |
| <b>Connectors</b>           |                    |
| P4001                       | A-3                |
| P4002                       | G-4 Ⓛ              |
| P4003                       | A-1 Ⓛ              |
| P4004                       | E-4 Ⓛ              |
| P4005                       | A-1 Ⓛ              |
| P6501                       | A-4 Ⓛ              |
| <b>Test Points</b>          |                    |
| TP4101                      | D-1 Ⓛ              |
| TP4102                      | E-2 Ⓛ              |

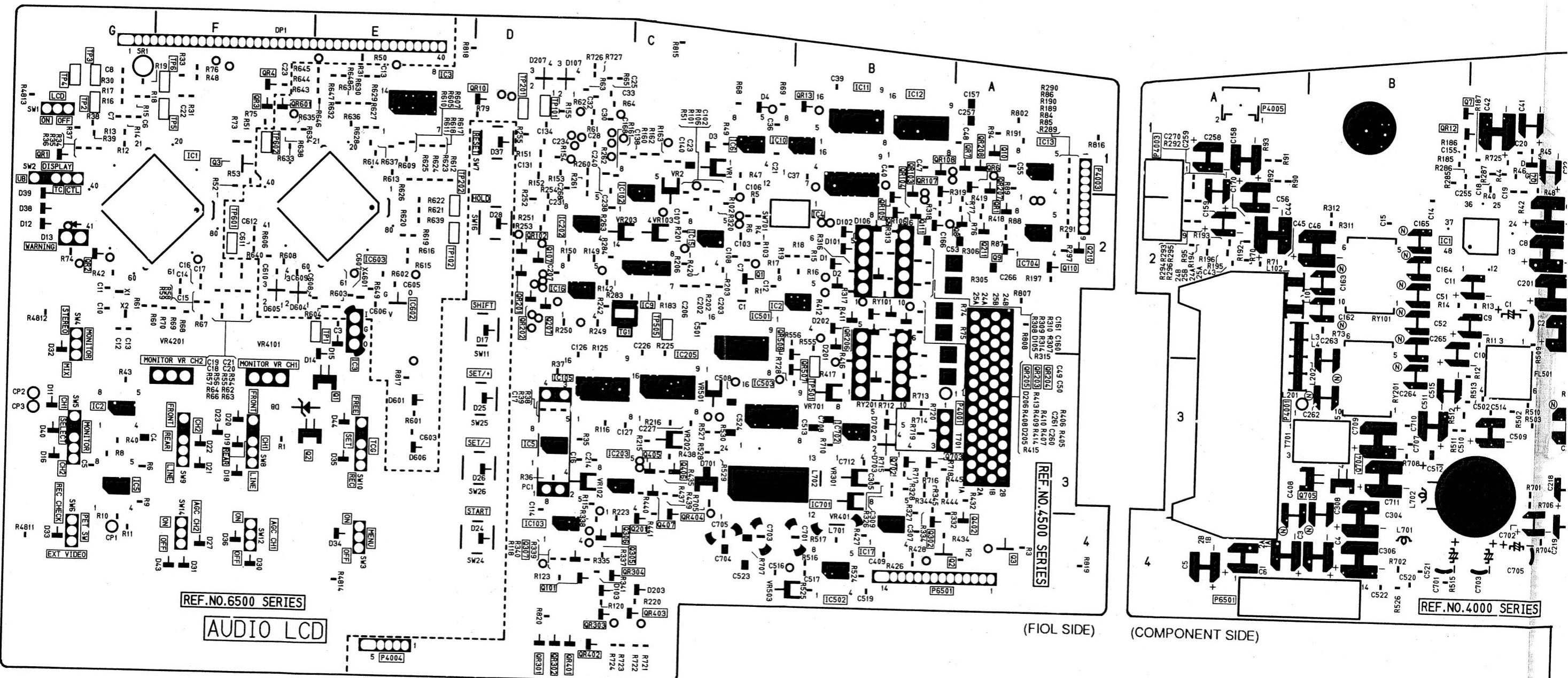
ADDRESS INFORMATION  
 Ⓛ ... COMPONENT SIDE  
 Ⓛ ... FOIL SIDE

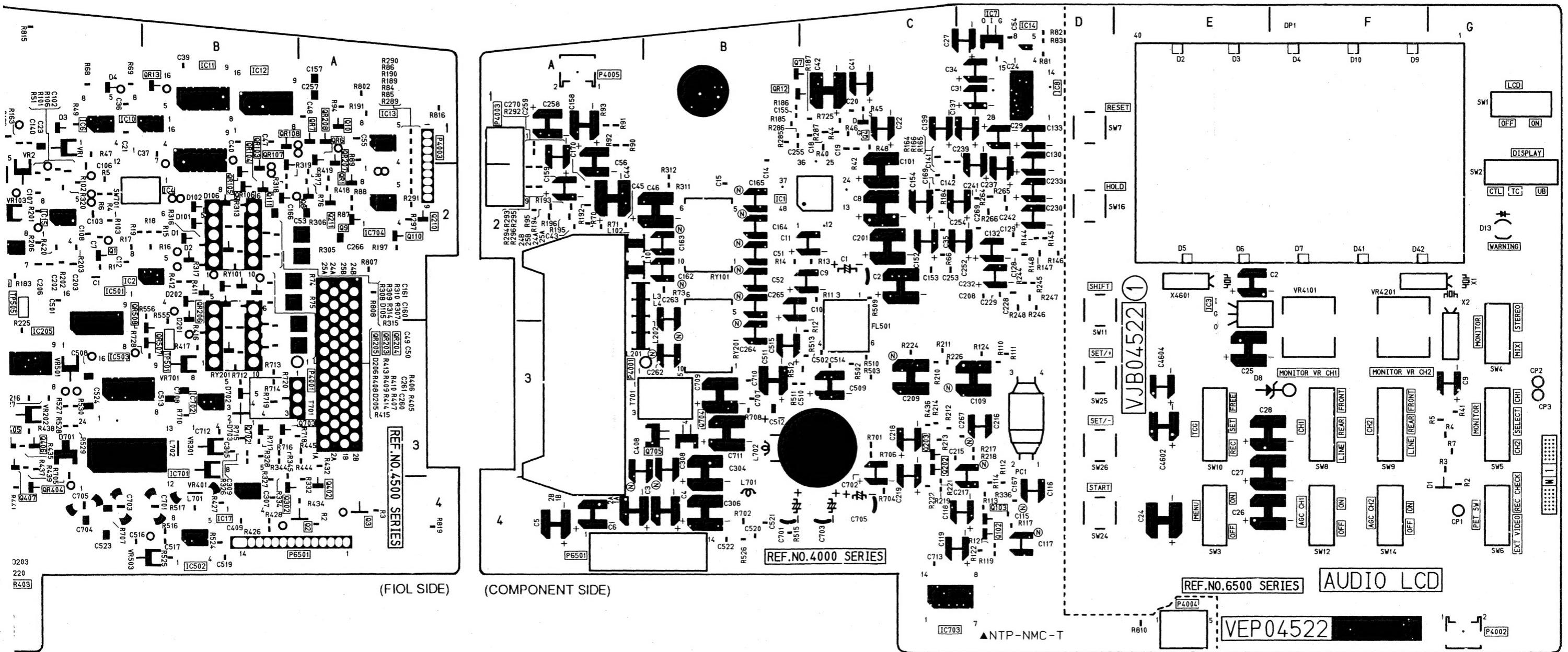
ADDRESS INFORMATION  
 Ⓛ ... COMPONENT SIDE  
 Ⓛ ... FOIL SIDE

AUDIO LCD P. C. BOARD



## **AUDIO LCD P.C. BOARD (VEP04522A)**





## CIRCUIT BOARD LOCATION

Memo

